The Future of Palestinian Economy: The role of Aid

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Abstract:

For the past sixteen years, the Palestinian economy has been suffering deeply on all fronts. It has had a continuous budget deficit, a trade deficit and negative domestic savings. These three major problems have existed despite the high flow of foreign aid, and, sometimes, the high flow of personal remittances.

Although growth, as measured by GDP, has been positive, except between 2000 and 2002, and slightly negative in 2004, the above problems have continued to exist. In addition to these problems the areas controlled by the Palestinian Authority have suffered from high unemployment, low Labour Force Participation Rate (LFPR) and high poverty levels.

The above economic situation has been accompanied by a positive level of economic growth acted as the stimulus for this research in which we will try to answer the following question: How can such problems exist despite the high levels of external inflow, especially aid?

The main goal of this thesis, therefore, is to examine the effect of foreign aid on the Palestinian economy from 1994, when the Palestinian Authority (PA) was established, until 2013. This was done using two different approaches:

1. A descriptive analysis was conducted using macro data for the Palestinian economy, where growth, GDP by expenditure and GDP by activity were thoroughly discussed. In addition, the fiscal, foreign exchange and saving gaps were discussed, along with the effect of remittances and foreign aid on those gaps. Such a comprehensive analysis covering the age span of the PA was done for the first time.
2. An empirical model examining the effect of aid on per capita income was constructed using three simultaneous equations, with the first equation examining the effect of foreign aid, local investment, exports, FDI, and other factors, on the per capita GDP. The second equation examined the effect of investment, exports and population growth, among other factors, on aid. The third equation examined the effect of aid, FDI, exports and other factors on investment. This is the first time such a model has been applied to the Palestinian economy, and it is also the

first time the effect of aid on the per capita GDP has been analyzed in the areas controlled by the PA.

In the descriptive analysis, it was realized that the major factors affecting growth and per capita GDP were political stability, investment and exports. When political stability is acceptable, as in the years 1994-1999, both investment and exports increased, but when political stability is low, as in the years 2000-2002, investment and exports sharply decreased and hence the per capita GDP reduced. It was also noted that, despite the high level of aid in the years between 2000 and 2003, growth was negative and the per capita GDP dropped. This economic behaviour clearly shows that aid is not the major factor in promoting sustainable growth.

Examining the use of aid further, it was seen that most of the aid was to support the budget, and hence was used for the salaries and current expenses of the PA, as well as on humanitarian help to people in need; very little was spent on investment in infrastructure, especially in the period between 2000 and 2013. This means that aid has been promoting consumption, which has been the main driver for the non-sustainable growth. Since this consumption is highly dependent on aid, however, this growth will never be sustainable.

The empirical analysis showed that aid negatively affected per capita GDP, this agrees with some previous theories, and means that no matter by how much aid is increased, the GDP per capita will be affected negatively in the long run, as long as aid is spent in such a way as to promote only consumption.

When testing investment, it was found that exports affected investment positively. This shows that there is a need to invest in export´s related industries, since this investment will positively affect per capita GDP.

The main conclusion of this research shows that, despite the negative effect of aid on per capita GDP, aid is still needed to cover the budget deficit, as well as to provide the foreign currency needed for imports. It was also concluded that in order to promote sustainable growth, more aid should be directed towards investment, both in the private and public sectors.

It was also evident that economic growth in the areas controlled by the PA is very much affected by the relationship between the PA and Israel, since Israel largely controls the Palestinians' life and economy. For this reason, and to achieve sustainable economic growth, Israel must relax its iron fist from the Palestinians, amending its agreements with the PA on the way to achieve full Palestinian independence and control over their territories.

Based on these conclusions the research recommended the following:

- An increase in aid to the 2008-2009 levels, with around 30% of this aid restricted for development, through an investment fund.
- The establishment of an investment fund, with a capital of US$ 3.5-4 billion collected over ten years. The main purpose of the fund is to oversee the disbursements of funds through the local banking system for development projects, as well as to monitor the effects of this investment on the economy of the PA.
- A new economic agreement should be signed with Israel, or major amendments made to the existing agreements. The new agreement should give the Palestinians more control over their economy, including control of imports and exports.
- Pressure must be exerted on Israel to relax its measures relating to the Palestinians, especially in Area C, including the Palestinian right of free movement and their right to build and invest in area C.

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Abbreviations:

ECOWAS	**Economic Community of West African States**
FDI	**Foreign Direct Investment**
GCF	**Gross capital Formation**
GDP	**Gross Domestic Product**
GNI	**Gross National Income**
GNP	**Gross national Product**
IBRD	**International Bank for Reconstruction and Development**
ILO	**International Labour Organization**
MENA	**Middle east and North Africa**
NPISH	**Non Profit Institutions Serving Households**
ODA	**Official development Assistance**
PA	**Palestinian Authority**
PCBS	**Palestinian Central Bureau of Statistics**
PLC	**Palestine Legislative Council**
PLO	**Palestine Liberation Organization**
Pot	**Palestinian Occupied Territories**
UN	**United Nation**
UNCTAD	**United Nation Conference for Trade and Development**
UNORWA	**United Nations Relief and Works Agency**

1. Chapter 1: Introduction

1.1 The structure of this chapter

This chapter discusses the research area and its importance and uniqueness. The Palestinian Authority (PA) is unique in terms of its political and international status. The PA lacks political and economic independence; it only has limited control over land, borders, roads and security. This uniqueness raises some important questions over its long-term sustainability given the same political and economic circumstance.

The chapter then provides a quick historical and economic description of the country, especially during the Israeli direct occupation of 1967-1994, showing the main milestones that effected both the economy and the life of the people.

1.2 Research area:

This research studies the impact of foreign aid on the growth of the Palestinian economy during the years 1994-2013, i.e. covering the period since the establishment of the Palestinian Authority (PA) until 2013.

The PA was established as a result of the Oslo agreement, signed between the Palestine Liberation Organization (PLO) and the state of Israel, in the hope of ending decades of conflict between the two sides. The basic idea of the agreement was to promote peace through economic prosperity, and accordingly donor countries established several trust funds and pumped money into them in order to help the Palestinian economy, through budget support, job creation, technical assistance and emergency rehabilitation projects (World Bank, 1996).

The importance of this study lies in the uniqueness of the Palestinian situation, since the PA only controls 40% of the West Bank and Gaza Strip, while 60% of the land is controlled by Israel, including all the connection points between Palestinian cities, and between the PA controlled areas and the external world, including total control of all border crossing points. This results in Israeli control of the movement of people and goods between Palestinian cities, and between the PA areas and the rest of the world. Israel also controls all natural resources including water and energy. The importance of

this study also lies, in investigating and presenting recommendations in respect to a situation that is internationally sensitive and important.

In simple words, we will be studying the economy of a country under occupation, with Israel, as the occupying force, controlling most aspects of life. This situation is very special and will clearly affect the effectiveness of the aid supplied to the PA controlled areas.

Another unique aspect of this study, is that very little research has been conducted on the effect of aid on the PA controlled areas, especially using empirical methods; all the available research has been based on partial descriptive analysis. The data was obtained from four different sources: The Palestinian Central Bureau of statistics (PCPS, 2015); the World Bank (World Bank, 2014); the Palestinian Monitory Authority (PMA Statistics, 2015); and the International Labour Organization (ILO, 2015). This data in the way it was presented and its completeness could be considered as a unique collection on its own.

The importance of this study also lies in the in investigating and presenting recommendations in respect to a situation that is internationally sensitive and important.

Following (Cali, 2011), aid has resulted in some symptoms of the so-called "Dutch Disease" and pointed out the unsustainable nature of the PA, both at the fiscal and at the trade level. He also pointed out that, in order for aid to be effective, the measures that are akin to an Israeli occupation must stop. A report by the United Nations Conference on Trade and Development came to the same conclusion, and asked for the relaxation of Israeli measures in order for the economy of the PA to flourish (UNCTAD, 2007). Another research by (Qabajah, 2012) examined the fiscal sustainability of the PA, concluding that the PA budget will continue to be dependent on aid in the short and medium term. Another research by (Herver, 2006) went further, accusing foreign aid of serving the aims of the occupation, by making the PA dependent on aid. He accused aid agencies of concentrating on budget support, rather than on development projects.

The impact of aid on growth is said to be one of the most controversial issues discussed in economic theory, with great disagreement between economists. Some see a positive

effect of aid on growth (Arndat, Jones, & Trap, 2009), but others find a negative effect (Bone, 1996). In between these poles, some argue that, in order to have positive effect, aid must be accompanied by sound macroeconomic policies (**B**urnside & Dollar, 2000)

This research will examine the effect of aid on the economic growth of the PA through a descriptive analysis, relying on data obtained from the Palestinian Central Bureau of Statistics, the Palestine Monetary Authority and the World Bank. Then, the data will be used to run a regression analysis using an empirical model comprising three simultaneous equations.

The research will also use the two gap theory of (McKinnon, 1964) and (Chenery & Strout, 1966), and the three gap theory of (Bacha, 1990), to examine if the PA economy is trapped in a cycle of aid dependency, including dependency of savings, foreign exchange and aid budgets on aid.

1.3 Historical Background:

The modern conflict between Israel and the Palestinian people extends back to the period before the establishment of the state of Israel in May, 1948. Chapter 2 describes the historical background of the conflict in detail. This historical background can be briefly summarized in table 1.1.

Table 1.1 shows clearly that the local Palestinian population has never ruled itself: they have been ruled by the Ottomans, the British and the Israelis. The West Bank has also been ruled by Jordan, and Gaza by Egypt. The table also shows that Zionist interest in Palestine goes to the end of the 18th century, when Jewish immigration to Palestine started. The conflict between the two sides increased during British rule, and culminated in the exodus of the Palestinians from their homeland and the establishment of the state of Israel.

Table 1-1 Summary of Historical background:

Year	Historical Event	Brief Description
1517	Ottoman Rule	Palestine was absorbed into the Ottoman Empire, as a result of the defeat of the Mamlouk leader on the hands of Sultan Salim.

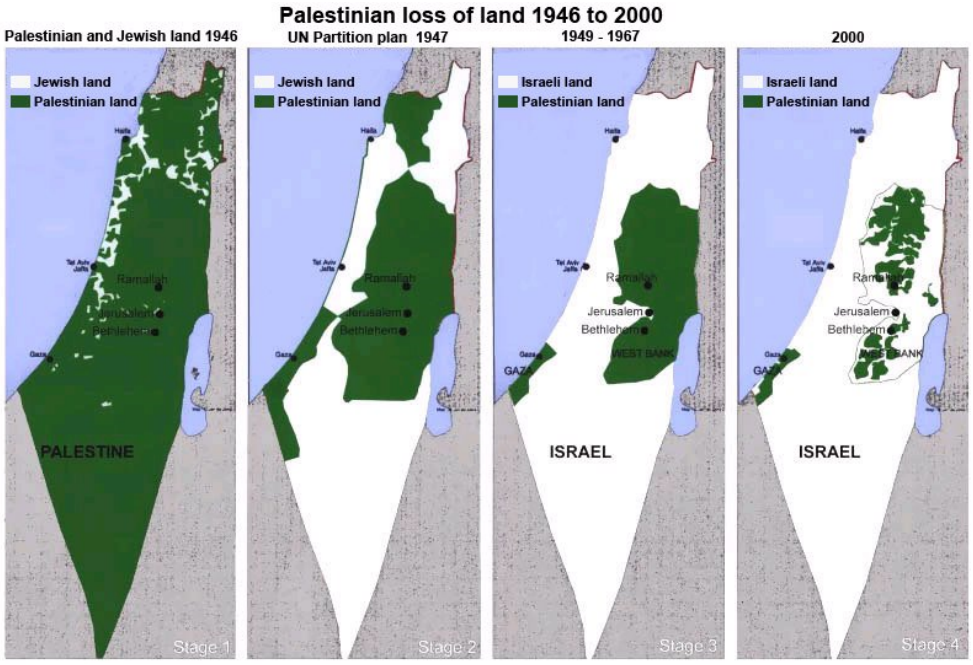
Year	Historical Event	Brief Description
1897	First Zionist Congress	A decision was taken by a group of Jewish representatives, mainly from Europe, to establish a Jewish state in the land of Palestine.
Nov, 1917	Balfour Declaration	The British foreign minister issued a statement offering the British Government's support and commitment to help the "Jewish people" to establish a state in the land of Palestine.
Dec, 1917	The British Army occupied Palestine	As part of the allied armies, the British army occupied Palestine. As a result, the British started helping the Zionist movement to bring more Jews to Palestine, as the precursor to establishing their own state.
1920	Palestinians demonstrate against British policies in Palestine	Tens of thousands of Palestinians took to the streets against British policies in promoting Jewish immigration to Palestine. These peaceful demonstrations, accompanied by a military revolt, continued until May 1948; the date of the mass exodus of the Palestinians from their homeland.
Nov, 1947	UN Partition resolution	Under the pressure of the conflict between the Jewish settlers and the Palestinian local population the UN adopted resolution 181 asking for the partition of mandatory Palestine into two states, one for the Palestinian population (43% of mandatory Palestine) and the other for the Jewish immigrants. The resolution was accepted by the Jewish immigrants and rejected by the Palestinians.
May, 1948	The establishment of the State of Israel	As soon as the British army declared its withdrawal from Palestine, the Zionist militia announced the establishment of a Jewish state comprising 78% of mandatory Palestine, forcing around one million Palestinians to flee their homes into neighbouring Arab countries.
Dec, 1948	West Bank annexation to Jordan	The West Bank was annexed by Jordan, meaning that all Palestinians residing in the West Bank became full Jordanian citizens with full political rights.
1949	Gaza under Egyptian	Gaza has no geographical connection with the West Bank, and borders Egypt. It was ruled militarily by Egypt, and its citizens

Year	Historical Event	Brief Description
	military rule	given Egyptian travel documents, without any political rights.
1967	The Six Day War	Following Israel's victory in the Six Day War, it occupied both the West Bank, including east Jerusalem, and the Gaza Strip, placing them under military rule, while annexing east Jerusalem.
1987	The first Palestinian Intifada	After 20 years of Israeli occupation of the West Bank and Gaza, a popular revolt erupted against occupation. This was a major turning point in the relationship between the Palestinians living under occupation and Israel.
1993	The Oslo agreement	The first peaceful agreement, in modern Palestinian-Israeli history, between the Palestine Liberation Organization (PLO) and the state of Israel. It was signed in the hope of achieving a just and final peaceful solution between the two sides.
1994	The Paris Protocol	The PLO and the State of Israel signed an agreement to govern the economic relations between the newly established Palestine Authority (PA) and the State of Israel. This agreement was added to the Oslo accord and was considered to be one of its annexes.
2000	The second Palestinian Intifada	A wave of violence between the Palestinians and the Israeli army erupted, resulting in the reoccupation of all West Bank cities and villages. This lasted for three years.
2006	The Islamic movement Hamas in power	As a result of a democratic election, Hamas won a majority in the Palestinian Parliament and, for the first time, an Islamic leader was appointed as the prime minister of the PA.
2007	Hamas takes over Gaza by force	Israel blocked the transfer of customs and VAT money to the PA, and the international community blocked the transfer of external aid. The new government was unable to pay employees' salaries, threatening the existence of the government. Accordingly, Hamas decided to take over its stronghold in Gaza by force, initiating a split between the Gaza and the West Bank. As a result, Gaza was completely separated

Year	Historical Event	Brief Description
		from the West Bank, although the Government of The West Bank continuing the spending on most services in Gaza.

This long conflict, and the associated control of land between the Palestinians and the Jewish settlers can be explained and summarized by Figure 1.1. The map shows how historical Palestine was divided over the years.

Figure 1-1 Historical control of the land of "Historic Palestine"



Map source from www.sott.net

The white colour shows the Jewish controlled land. The first map shows undivided historic Palestine, with very small control over the land. The second map shows the UN's proposed division of historic Palestine into two states, one for the Palestinian Arabs, and the second for the Jewish immigrants; the third map shows how historic Palestine was divided as a result of the 1948 war, with Israel established on 78% of historic Palestine, while the fourth map shows how the West Bank was further divided by Israeli settlements, with only 12% of historic Palestine left under Palestinian control. In recent

years, more Israeli settlements have been built in the occupied West Bank, dividing Palestinian areas even more. This will be discussed in more detail in Chapter 2.

1.4 Economic Background:

Table 1.2 shows some of the key economic indicators for the West Bank and Gaza (called the PA controlled areas after 1994), for the period 1970-2007.

It shows that after the Israeli occupation of the West bank and Gaza in 1967, and the normalization of relations between the two areas, including free movement of goods and people, the free movement of trade started to materialize between the two economic areas; on one hand, the Palestinians exported labour to Israel, as well as labour intensive products, such as textiles, shoes and furniture, products that were fabricated in the West Bank and Gaza to the benefit of Israeli traders and manufacturers. This resulted in a growth in GDP and a drop in the unemployment rate during the period 1970-1994, the period of Israeli direct occupation. During this period, GDP increased from US$ 670 million in 1970 to US$ 3,014 million in 1994, an increase of 350%, and an average annual increase of 14%. GDP per capita also increased, but at a slower rate: from US$ 690 in 1970 to US$ 1,438 in 1994, an annual average increase of only 4.3%. This can be attributed to the high population growth in the Palestinian areas. Unemployment in the West Bank ranged between 6.4% in 1970, to 1.6% in 1987, and 3.2% to 2.5% in Gaza. This low unemployment rate was attributed to the use of cheap Palestinian labour by Israel. Palestinian labourers working in Israel reached a peak of 108,900 workers, in 1987, some 28% of the Palestinian labour force, not including the thousands of Palestinian workers working in the manufacturing of goods for the benefit of Israeli traders.

During the period 1970-1994, almost all Palestinian exports were directed towards Israel, with exports from the West Bank and Gaza Strip, as a percentage of GNP, reached 13% in 1994, while exports to Israel reached a percentage of 12.2%, which means that almost all Palestinian exports were to Israel. This picture did not change after 1994, with over 90% of Palestinian exports targeting Israel. Palestinian imports to GNP was 67.2% in

1994, with imports to GNP from Israel reaching 59.9%; again this shows that most Palestinian imports were from Israel. (Shoukair, 2013).

Table 1-2 Economic Indicators for the West Bank and Gaza 1970-2007 (selected years)

Year	**1970**	**1980**	**1987**	**1994**	**1999**	**2002**	**2007**
GNP (2004 US Million $)	752	1,942	2,604	3,408	5,288	3,513	5,048
GDP (2004 US Million $)	670	1,536	1,824	3,014	4,514	3,265	4,536
GNP/GDP (%)	112%	126%	143%	113%	117%	108%	111%
GNP per capita (2004 US $)	775	1,657	1,849	1,615	2,008	1,218	1,504
GDP per capita (2004 US $)	690	1,311	1,259	1,438	1,714	1,132	1,351
Export (% of GNP)	16.6%	22.0%	17.8%	13.0%	13.8%	11.6%	11.9%
Export to Israel (% of GNP)	7.7%	14.4%	14.0%	12.2%	13.4%	10.4%	10.6%
Import (% of GNP)	56.0%	57.7%	58.0%	67.2%	68.6%	81.1%	54.8%
Imports from Israel (% of GNP)	46.8%	50.6%	53.0%	59.9%	52.0%	44.5%	40.2%
Foreign financial transfers plus net capital transfer (millions USD 2004 prices)	213.8	287.9	267.4	1,452.3	2,124.3	2,191.6	1,655.9
% of financial foreign transfers/GNP	28.4%	14.8%	10.3%	42.6%	40.2%	62.4%	32.8%
Employment in West Bank and Gaza (000s)	173.3	218.0	278.0	316.0	502.0	406.0	565.0
Employment in Israel (000s)	20.6	76.0	108.9	51.2	115.0	41.8	56.0
Palestinian labour working in Israel to the total Palestinian labour	10.6%	25.9%	28.1%	13.9%	18.6%	9.3%	9%
Unemployment rate in Gaza (%)	6.4%	3.1%	1.6%	24.9%	18.0%	39.1%	32.1%
Unemployment rate in West bank %	3.2%	1.8%	2.5%	17.4%	13.0%	30.9%	20.6%

Source: (Shoukair, 2013. P16) Based on data from the Palestinian and Israeli Bureau of Statistics

Also, the ratio of GNP to GDP was 112% in 1970, increasing to 126% in 1980 and 143% in 1987. This was a result of the increasing number of Palestinian labourers working in Israel: from 20,600 in 1970 to 76,000 in 1980, and 108,900 in 1987.

This clearly shows that during the years of Israeli direct occupation of the West Bank and Gaza, the Palestinian economy was highly annexed to Israel economy, resulting in total dependency on Israel. This economic relationship between Palestine and Israel is important to remember when we discuss the Palestinian economy in the period 1994-2014 (which will be described in chapter three). These numbers also explain the grounds upon which the Paris Protocol[1] was built in 1994.

During the early years of occupation, Palestinians depended partially on foreign financial transfers, mainly from family members working in the Arabian Gulf states. In 1970, foreign financial transfers plus net capital transfer to GNP were 28.4%, decreasing to 14.8% in 1980 and 10.3% in 1987, before increasing again to 42.6% in 1994. This shows that the dependency of Palestinians on foreign transfer was dropping during the years of occupation, as Palestinian labour was absorbed into the Israeli economy. In 1994, this ratio increased sharply after the establishment of the PA, and the transfer of aid and FDI in the first years of the PA's life.

In 1994, the PA was established, and with the hope of peace, Palestinians were anticipating economic prosperity. In contrast, GNP per capita dropped from US$ 1,849 in 1987 to US$ 1,615 in 1994, and further to US$ 1,218 in 2002. Although this figure increased to US$ 1,507 in 2007, the GDP per capita was still below the 1994 value. Unemployment also increased in Gaza from 1.6% in 1987 to 32.7% in 2007 and. in the West Bank, from 2.5% in 1987 to 20.6% in 2007.

Table 1.3 shows a comparison of GNP values with neighbouring countries for the years of 2000 and 2005. The data shows that the West Bank and Gaza were still the poorest of all neighbouring countries, with GNP per capita of US$ 1,580 in 2000 dropping to US$ 1,230 in 2005. This is below the average of the MENA region and below that of Jordan and Lebanon. In 2005, the value of GNP in Israel was 16 times higher than that in the PA

[1] The Paris Protocol is the agreement between the PLO and Israel, signed in 1994 ,to regulate the economic relationship between Israel and the PA, which will be discussed in detail in Chapter 3.

controlled areas. Growth in the period 2000-2005 was negative in the PA controlled areas, while it was positive in all neighbouring countries, including Israel.

The economic performance of the PA will be discussed in detail in chapter 3, but this quick introduction highlights a few important points, which can be summarized as follows:

- The Palestinian economy became dependent on Israel after the 1967 Israeli occupation, and this continued to be the case after the establishment of the PA in 1994.
- After the establishment of the PA, it became one of the poorest entities compared with neighbouring countries, like Israel, Jordan and Lebanon.

Table 1-3 GNP per capita for the West Bank and Gaza and neighbouring countries

	2000		2005		Annual Growth rate 2000-2005
	GNP $ Billion	**GNP Per capita**	**GNP $ Billion**	**GNP Per capita**	
West Bank and Gaza	4.67	1,580	4.45	1,230	-4.88%
Jordan	8.6	1,790	13.47	2,490	6.82%
Lebanon	17.29	4,580	22.82	5,690	4.43%
Israel	112.54	17,890	136.98	19,790	2.04%
MENA	453.3	1,640	662.82	2,190	5.95%

Source: (Shoukair, 2013, p21) Based on data from the World Bank

- The percentage of Palestinian labourers working in Israel to the total Palestinian labour force decreased dramatically after the establishment of the PA, from 28.1% in 1987 to 9% in 2007. This has resulted in a sharp increase in the unemployment rate from the level of around 2% in 1987 to 20-30% in 2007.

- The Oslo Peace Agreement did not bring economic prosperity to the Palestinians, on the contrary it brought economic hardship.

1.5 Research purpose and questions:

It was noted earlier that Palestine cannot be treated as a state living under normal conditions. Rather, it must be considered as having limited autonomy, living in a continuous conflict, with direct and indirect occupation controlling the economy and the life of the Palestinian people.

In 1994, Israel transferred authority on education, health and other services to the newly established Palestinian Authority, with all the attendant financial implications. Since then, the PA has been responsible for the running of a country that has no control over its borders or economy. This has left the PA controlled areas totally dependent on both Israel and foreign aid.

This study will try to answer the main questions of: How effective aid has been to the Palestinian economy? And how its effect was reflected on the PA key economic indicators? In order to answer those two main questions, the following sub questions have to be answered:

- Has foreign aid affected economic growth in areas controlled by the PA positively or negatively?
- Has foreign aid affected investment in areas controlled by the PA positively or negatively?
- Has foreign aid been targeted at the right priorities? And, has it been directed through the most effective channels?
- How has investment affected growth? If positively, then how can we channel foreign aid into investment in order to have a positive impact on growth?
- If aid comprises the main part of the PA budget, then what are the fiscal policies of the PA, and how do these affect the Palestinian economy?

The hypothesis of this research can be described as follows:

The PA's economy is unable to drive sustainable positive growth, despite the high level of aid. At the same time the PA is unable to support itself without external aid. For the PA to continue functioning, therefore, external aid is needed, but, because of the chronic problems of the Palestinian economy, in the form of low savings, high unemployment, and both trade and budget deficits, aid, at least in the way it is currently spent, is not enough for the PA to be sustainable.

1.6 Justification of the research:

Like many other developing countries, the PA controlled areas suffer from problems of chronic unemployment, low savings rates and income per capita, and high levels of budget deficit as a percentage of GDP.

Some external inflows are needed to resolve these chronic problems, whether in the form of FDI, remittances or foreign aid. Aid to the PA controlled areas reached some US$ 27 billion in 20 years, reaching its peak of US$ 2.8 billion in 2009, this is 26% of the GNI. So, aid is considered to be the most important supply of external inflow. Aid has helped the PA to continue functioning by covering the budget deficit, as well as helping families in need through humanitarian relief. On the other hand, aid has failed to have an impact on growth. The significance of aid in the economy of the PA controlled areas, and the lack of research in this area, serves to justify this study into the long term impact of aid on the Palestinian economy.

1.7 Structure of the Thesis:

Chapter 1 has set out the framework of the research, identifying the questions to be addressed.

Chapter 2 will describe and discuss the complex political situation of the Palestinian question, from the end of the 19th century until today. It will also discuss the political agreements signed between the PLO and the State of Israel and its reflection on the economic situation of the newly established Palestinian Authority. This chapter will show that the PA has a unique situation, which should be taken into consideration when we discuss its economy.

Chapter 3 will provide a full descriptive analysis of the economy of the PA controlled areas. Including, but not limited to, GDP by expenditure and by activity, the per capita GDP and the rate of growth. It divides the 21 years under discussion into three different periods based on political stability, these three periods are the period of hope (1994-1999), the period of violence (2000-2003), and the period of state building (2004-2014).

Chapter 4 gives a full descriptive analysis of the PA economy based on the three gap theory, describing the inflows and outflows of the economy, including external aid, remittances and FDI, as well as giving a full analysis to the PA budget. This discussion will help in supporting or contradicting the results that will be obtained in the empirical analysis, which will be discussed in chapter 5.

Chapter 5 will discuss the theoretical and empirical literature on the effect of foreign aid on the economies of developing countries. It will also discuss the results of the empirical model that analyses the effect of aid on the Palestinian economy.

Chapter 6 describes a plan for the Palestinian economy, in the for of recommendations of the research. These includes some recommendations for the Palestinian Authority and the donor community in respect to the most effective ways of using aid, as well as discussing the possible results of such recommendations. It then gives recommendations on further research areas.

Chapter 7 will then discuss the conclusions obtained from both the descriptive and empirical analysis, in terms of the effect of aid, investment and FDI on the Palestinian economy, and the level of agreement between the descriptive and empirical analyses.

2. Chapter 2 Palestine: Historical background

2.1 Introduction

This chapter will be divided into three major parts. The first part will give a very brief description of the history of Palestine for the period starting from the end of the 19th century up to 1994, the year of the establishment of the Palestinian Authority (PA), putting emphasis on the status of both the West Bank and the Gaza Strip, the two parts that were occupied by Israel in 1967, and which are the subject of this study. The second part will give a quick review of the political agreements signed between the State of Israel and the Palestine Liberation Organization (the PLO), in particular the Oslo Accord and the Paris Protocol. The third part will give a description of some of the consequences inherited from the failure of the above two agreements, in respect to: land, population and free movement of the Palestinian citizens and goods; infrastructure (water supplies, communications, transportation, etc.), as well as all aspects that directly affect the economy of Palestine and the wellbeing of its people.

2.2 Political history of Palestine

Palestine lies in the western part of Asia and in the heart of the Middle East. It connects Asia and Africa through Egypt, and has access to both the Mediterranean and Red Seas. Its size is 27,000 square kilometres. ("Maps of the world", 2014).

Until May 1948, when the State of Israel was created, the majority of the population were Palestinian Arabs, with a very small Jewish minority, who were living as Palestinian Jews, alongside Muslim and Christian Palestinians. (Rabinovich & Reinharz, 2008).

The Palestinian-Israeli conflict started at the end of the 19th century, long before the establishment of the State of Israel. The conflict started when waves of European Jews started to immigrate to historical Palestine, which was then under Ottoman rule. (Kayali, 1990)

The Jewish immigration to Palestine intensified at the end of the 19th century; after the first Zionist conference in 1897, which adopted a resolution stating that "Zionism seeks

to establish a home for the Jewish people in Eretz Israel[2] secured under public law" (Herzl, 2013).

The term Eretz Israel in Hebrew, means in English "the land of Israel" which was known at that time as Palestine. This statement meant that the European Jews were seeking to establish their state on a land that was inhabited by another people. As a result, the conflict intensified in the following years after the start of the Zionist immigration to Palestine.

This conflict between the local Palestinian population and the Israeli settlers had some multiple facets. It started with a conflict over land, but it extended into a religious, social, economic and cultural conflict. These facets of the conflict have continued to develop until the 21st century.

Despite all the different and difficult facets of the conflict, there could be only one acceptable solution, however: a political solution, accompanied with a trust building process. (Amitay, 1994), describes the Israeli-Palestinian conflict with the following words: "Though the Arab-Israeli conflict is both political and religious, inter-religious understanding will have to await a mutually acceptable political solution."

2.2.1 Historical Background

The modern history of the Palestinian-Israeli conflict can be traced from the last few years of the 19th century, after the first Zionist congress held in Basel, Switzerland, led by the founder of the modern Zionist movement, Theodor Herzl. On 27, Aug, 1897, and as a response to the increased oppression of the Jewish population in Europe, especially in Russia (Kayali, 1990), the Zionist congress declared that "*Zionism seeks to establish a home for the Jewish people in Palestine secured under public law*."

At the end of the 19th century, and before Zionist immigration started to historic Palestine, which was then a province in the Ottoman Empire called southern Syria;

[2] Land of Isreal

Muslims, Christians and Jews lived in harmony (Kayali, 1990), and considered themselves as Arabs with different religions. According to (Kayali, 1990), in 1882, the Jewish population in Palestine was 8% of the total population, which increased to 8.1% in 1918, and to 16.9% in 1931, as shown in Table 2.1 *(Jewish & Non-Jewish Population of Israel/Palestine (1517-Present))*, 2016).

Jewish immigrants bought land from Palestinian and Lebanese land-lords, and moved out Palestinian peasants working on the land. This movement of peasants out of the land was an initial cause of the bad relationship between the new Zionist immigrants and the local Palestinian community.

Table 2-1 Percentage of Jewish population in Palestine.

Year	Jews	Non-Jews	Total Population	% Jewish
1517	5,000	295,000	300,000	**1.7%**
1882	24,000	276,000	300,000	**8.0%**
1918	60,000	600,000	660,000	**8.1%**
1931	174,610	861,211	1,035,821	**16.9%**
1936	384,078	982,614	1,366,692	**28.1%**
1946	543,000	1,267,037	1,810,037	**30.0%**
1948	716,700	156,000	872,700	**82.1%**
1950	1,203,000	167,100	1,370,100	**87.8%**
1955	1,590,500	198,600	1,789,100	**88.9%**
1960	1,911,300	239,100	2,150,400	**88.9%**
1965	2,299,100	299,300	2,598,400	**88.5%**
1970	2,582,000	440,100	3,022,100	**85.5%**
1975	2,959,400	533,800	3,493,200	**84.7%**

Year	Jews	Non-Jews	Total Population	% Jewish
1980	3,282,700	639,000	3,921,700	**83.7%**
1985	3,517,200	749,000	4,266,200	**82.5%**
1990	3,946,700	875,000	4,821,700	**81.9%**
1995	4,522,300	1,090,000	5,612,300	**80.6%**
2000	4,955,400	1,413,900	6,369,300	**77.8%**
2005	5,313,800	1,676,900	6,990,700	**76.0%**
2010	5,802,900	1,892,200	7,695,100	**75.4%**
2013	6,042,000	1,967,000	8,018,000	**75.4%**
2014	6,102,000	2,488,000	8,132,000	**75.2%**

Source: (Rabinovich & Reinharz, 2008)

This Zionist intention to establish a Jewish state in historic Palestine coincided with Jewish immigration to the United Kingdom (UK) from Russia, which provoked concerns within the British government, fearing the rise of anti-Semitic tension in response to the new immigration. This encouraged the British government to support the Jewish immigration to Palestine in order to avoid more Jews moving to its territories (Kayali, 1990). These British concern led to the Balfour Declaration in 1917, which is considered to be one of the cornerstones in the support of the UK for the Jews of the world to establish their own nation state in Palestine (Jebara, 1998). The declaration was in the form of a letter sent by Lord Balfour, the British foreign minister to Lord Rothschild, a leading Zionist, on the 2nd November, 1917. The declaration stated: "*His Majesty's Government views with favour the establishment in Palestine of a national home for the Jewish people, and will use their best endeavours to facilitate the achievement of this object, it being clearly understood that nothing shall be done which may prejudice the civil and religious rights of existing non-Jewish communities in Palestine or the rights and political status enjoyed by Jews in any other country*." (Balfour, 1917).

This declaration gained special importance, because of the coming British military presence in Palestine at the end of World War I.

In December 1917, the British army defeated the Ottoman army, occupied Palestine and assumed military control over all of historic Palestine. According to (Barghouthi & Totah, 2001), the British used their military presence in Palestine to promote and protect the Zionist immigration to Palestine, and to help the new Zionists to settle in.

(Kaiali, 1990) indicated in his book on the modern history of Palestine, that senior British officials in Palestine sent several reports to the British leadership in London, indicating the negative effects of Jewish immigration to Palestine, and the tense relationship between the Palestinian locals on the one side, and the Jewish immigrants and British authorities on the other. Such reports did not receive serious attention from the British government, and in fact the British increased their commitment to the materialization of the Balfour Declaration by intensifying their support to the fast- growing emigration of European Jews to Palestine.

Between 1920 and 1948

The British policy of promoting Zionist immigration to Palestine was met with Palestinian opposition, both to British policies and Jewish immigration. In February 1920, Palestinian leaders met in the headquarters of the Islamic-Christian society in Jerusalem to discuss the Jewish immigration to Palestine and British support for this, and decided to commence public demonstrations in Jerusalem and other Palestinian cities to protest against British policies in Palestine (Jebarah, 1998).

On the 27th February that year, more than 40,000 Palestinians took to the streets of Jerusalem to protest against the British policies in helping Zionist immigration and settlement in Palestine, and this was followed by similar protests in other Palestinian cities. The British responded with brutality and arrests of Palestinian leaders. This demonstration marked the beginning of a long wave of protests against Zionist immigration to Palestine.

In March, 1920 the UK was officially named as the temporary ruler of Palestine by the San Remo conference,[3] and was given a mandate over Palestine. The British appointed Mr. Herbert Samuel, a British Jew, and a Zionist leader, as the civil administrator of Palestine.

In the 28 years of the British mandate to Palestine, the mandate administration facilitated Jewish immigration, through laws, encouragement and logistical assistance, as well as by the suppression of any Palestinian revolt against such policies. This resistance was both peaceful and military. (Jebarah, 1998) described the events of 1936 in what was later to be known as the Great Palestinian Revolution. As the economic situation in Palestine deteriorated, with high unemployment in the cities, and high competition with Zionist settlers in the farming industry, protests against the British rulers intensified. In April 1936, the Palestinian leadership held a meeting to discuss the political and economic situation in Palestine, in which they declared a general strike that lasted for six months. The strike was accompanied by widespread peaceful Palestinian protests but also by military clashes between Palestinian militants and both Zionist militants and the British army. These protests lasted for three years and were met with British military oppression. In order to suppress the widespread Palestinian protests, the British increased their military presence, reaching 70,000 soldiers as well as a 40,000 strong police force both of which were used to suppress the Palestinian military and peaceful revolt. This revolt stopped as World War II began.

The Zionist immigration to Palestine resulted in some dramatic changes in the population structure, with the Jewish population increasing from 8%, in 1880, to 30% in 1946, and 82.1% after the Palestinian exodus in 1948, as shown in table 2.1, *(Jewish & Non-Jewish Population of Israel/Palestine (1517-Present))*, 2016)

The British mandate to Palestine, ended in 1948, along with the establishment of the state of Israel, and the exodus of over 1,100,000 Palestinian inhabitants from their homes.

[3] The San Remo Conference was held after World War I and was attended by the allied powers of World War I. The conference divided the Ottoman Empire into small provinces, assigning rule to designated victorious countries of the allied powers.

(Pappe, 2006), a famous Israeli Jewish historian, described this exodus as a well-planned "ethnic cleansing" of the native Palestinian population, in order to make way for a demographic homogeneous population of recent Jewish arrivals. While other Jewish academics, like (Edelheit, 2000), linked the establishment of the state of Israel and the Holocaust, describing the Holocaust as the consequence of the powerlessness of the European Jews, and the establishment of the State of Israel as their emergence from powerlessness: so the Jews moved from oppression in Europe to independence in their newly built state.

In brief, the Palestinians considered 1948 as the year of the NAKBA (Catastrophe) of the Palestinian people, while the majority of Israelis considered 1948 as the year of independence. These two completely different visions underpinned the conflict that would intensify in the following years, a conflict that is still looking for a solution after 59 years.

1948-1967, Israel, the West Bank and the Gaza Strip

Israel was created on 78% of historic Palestine, with a new Jewish majority, Only 156,000 of the Palestinians population stayed in the newly created State of Israel, with over 1,100,000 being forced out of their homes, taking refuge in the West Bank, Gaza, and other Arab neighbouring countries such as Jordan, Lebanon and Syria. (. This mass exodus is clearly evident in table 2.1. *(*Rabinovich, & Reinharz, 2008).After May 1948, the Palestinian population was divided into four different groups, people who stayed and lived in the newly created State of Israel, people who lived in the West Bank, people who lived in the Gaza Strip, and people who took refuge in other parts of the Arab world, living mostly in refugee camps.

The West Bank and Gaza Strip were the only two parts of historic Palestine that escaped Israeli occupation. They are two geographically separated areas, comprising 22% of historic Palestine, with Israel lying in the middle. The Gaza Strip, an area of only 360 square kilometres was ruled military by Egypt after May 1948, while the West Bank, an area of 5,860 square kilometres, was annexed by the Hashemite Kingdom of Jordan and

by the end of 1949, residents of the West Bank were full Jordanian citizens holding Jordanian passports. On the 1st April 1950 a general election was held in Jordan, electing a new parliament representing the newly unified kingdom and from that date until 1967, no data was made available on the West Bank, but rather all data available was for the unified Hashemite Kingdom of Jordan. (Jebarah, 1998).Jordan population was around 1.2 million people in 1949 before its unification with the West Bank, (Kayali, 199)**,** almost the same size of the West Bank population. The unification changed the demographic structure of the kingdom.

During this period 1949-1967, the Palestinians in the West Bank were given full political rights, and became full citizens of the Hashemite kingdom, and the economy of the West Bank became an integral part of the economy of Jordan. Gaza was military administered by Egypt, through a mandate given to them by the Arab league. The Palestinians living in Gaza were given Egyptian travel documents, and their only operating border crossing was with Egypt. Their economy was totally annexed to the Egyptian economy.

The Gaza Strip, under Egyptian rule, suffered from a very bad economic situation, with its population almost tripling in 1948; with more than 300,000 refugees fleeing other parts of Palestine and residing in Gaza. This flood of immigration to Gaza was accompanied by the loss of 67% of Gaza's land to Israel, making Gaza the most densely populated area in the world. According to UN agencies, in 1948, only 20% of the population of Gaza were capable of self-supporting themselves (Sourani, 2011). During the period 1948-1967, very little was published on the economies of both the West Bank and the Gaza Strip. For the West bank, all published data covered the economy of the Hashemite Kingdom of Jordan and no data on the West bank as a separate entity. For Gaza, Egypt completely ignored its economy both physically and in terms of data publication.

1967-1994, the West Bank and Gaza Strip under Israeli occupation

On June 5th 1967, Israel attacked the Arabs at three fronts, Egypt, Syria, and Jordan; Israel considered these attacks as preventive attacks, to keep Arab armies away from Israel (Dawidowics, 1968). The war lasted only for six days and resulted in Israel occupying the Golan Heights from Syria, the Sinai Peninsula and the Gaza Strip from

Egypt, and the West Bank from Jordan, more than tripling the size of Israel. Arabs considered the Israeli attack as aggression and asked the UN Security Council to intervene. The UN Security Council, issued resolution 242 asking Israel for the withdrawal from occupied land.

Israel immediately put the occupied areas under military rule, and appointed a military commander for each occupied area except for Jerusalem, which was annexed to Israel and placed under Israeli rule, with its Palestinian inhabitants given residency permits, without political rights. The military commanders of the occupied territories, issued military orders that controlled the economy, social, legal, and all aspects of Palestinian lives (Dawidowics, 1968).

According to (Arnon, 2007), the economies of both the West Bank and Gaza Strip were completely annexed to the Israeli economy. Israel imposed a customs union with the occupied areas, controlling imports, exports, customs, direct and indirect taxes, as well as closing all Arab banks, and imposing the Israeli Lira as an official currency.

According to (Shoukair, 2013), during the years 1970-1980 there was a big boom in the Palestinian income, and accelerated growth. The main source of growth was remittances transferred from Palestinian labourers working in Israel, and Israeli exporters subcontracting Palestinian establishments to produce for them, especially in the textile industry. Although the economic policies implemented by Israel increased Palestinian income and promoted growth, they prevented the establishment of an independent sustainable Palestinian economy.

During the years of 1980-1985, Israel's economy passed through difficult situation accompanied by three digit inflation (Shiffer, 1986), which resulted in a sharp drop in Palestinian purchase power.

This was followed, in December 1987 by a massive Palestinian uprising, with Palestinians revolting against Israeli occupation, in what was known as the first Palestinian Intifada. This resulted in a further slowdown in the economy, as well as a drop in Palestinian income, especially in the first year. During this time, Palestinians boycotted work in Israel (Arnon, 2007).

Israel responded with an iron fist policy, imposing curfews, closing areas and reducing the transfer of products from the West Bank and Gaza to Israel. These Israeli measures, as well as the reduction of the number of workers employed in Israel, resulted in negative growth, and an increase in poverty in both the West Bank and Gaza Strip (Shoukair, 2013).

Politically, this was accompanied by the defeat of the PLO in Lebanon in 1982, with PLO leaders being forced out into several Arab states, mainly Tunisia. This resulted in the weakening of PLO's political influence on the residents of the West Bank and Gaza Strip, and the emergence of a new local leadership.

This new situation posed a threat to the power of the PLO, which forced the latter into political negations with Israel, the first of its kind. Israel recognized the need of the PLO leadership in Tunisia to re-establish its power over the Palestinians, and acted accordingly to force an agreement whereby the PLO leadership was brought to live under semi Israeli occupation. This political agreement will be known as the Oslo Accord, and will be discussed in details later in this chapter.

In 1991 changes on the ground started to affect the political scene. These changes can be summarized as follow:

- The first Palestinian Intifada started to cool down, with the Palestinian population in the West Bank and Gaza feeling the economic pressure of curfews and blockades. The intifada started to lose its focus and direction, and became a burden on the backs of the Palestinians of the West Bank and Gaza.
- The Israeli government started to realize the amount of damage the intifada has caused to Israel's reputation, with the international media showing the brutality of its army against the Palestinian civilians. It also realized the moral damage the intifada was causing to its army. The Israeli army, which is trained for military combat, found itself running after and shooting at stone-throwing civilians.
- On the other side, the PLO leadership started to lose its influence on the situation in the occupied territories (The West Bank and Gaza), after its departure from Lebanon, and moving all its military force to countries far away from the occupied territories.

The PLO leadership was moved out of Lebanon to Tunisia, far away from the Israeli boarders, and were restricted to minimal political activities, and no military activities. This resulted in a reduction in its political influence in the West bank and Gaza.

- The Gulf War of 1991 against Saddam Hussein of Iraq, and the support of the PLO chairman Yasser Arafat for Saddam Hussein, against the will of most of the Arab countries, especially the wealthy Gulf countries, made the PLO leadership unwanted in most of the Arab capitals, and they were forced to look for another refuge. Arab political pressure was put on the Tunisian government to put more restrictions on the political activities of the PLO leadership.

Against this background, the US, mediated the holding of an international conference, between the Palestine Liberation Organization (PLO), Jordan and the state of Israel in Madrid, in December 1991. The Palestinian delegation consisted of local leaders, residing in the West Bank and Gaza, and without any PLO official, but, with the implicit blessing of the PLO. These negotiations did not reach an agreement between parties, due to the huge differences between the Palestinians and Israel.

Against the possible failure of the Madrid conference, and the desperate need of the PLO to find a new refuge, with friendly surroundings, and during the time of those negotiations, the PLO conducted a different secret round of negotiations in Oslo, led by the current president of Palestine, Mr. Mahmoud Abbas. Those negotiations were concluded with an agreement on 13th December 1993. This agreement was a surprise to the local Palestinian leaders, the Palestinian public, as well as to the Arab world (Fawcett, 2013).

According to Rynhold, (2008), the departure of the PLO leadership to Tunisia, the Palestinian Intifada, led by a new leadership living inside the West Bank and Gaza, the loss of Iraq to the Gulf War, and the end of the Cold War, together represented a significant change in the balance of power, forcing the PLO into secret negotiations. Accordingly, the PLO entered these secret negotiations when it was in its weakest position ever. This weakness reflected itself in the agreement, which was in Israel's favour.

2.2.2 The Oslo Agreement (The Declaration of Principles)

1993 is considered to be a major turning point in Palestinian and Israeli history. The negotiations in Oslo resulted in the signing of a historic agreement between the Palestine Liberation Organization (PLO) and the state of Israel, declaring the future principles of peace, through which the West Bank and Gaza Strip would have self-autonomy for five years, and during those five years, both parties would negotiate an agreement on the final status of the West Bank and the Gaza Strip, based on the international resolutions 242 of 1967, and 338 of 1973. Both of those resolutions call for the Israeli withdrawal from the land it occupied in the Six Days War of June, 1967.

The Oslo Accord is the agreement that brought the Palestinian Authority into legal existence. Its official name is "**The Declaration of Principles on Interim Self-Government Arrangements"** ("Oslo Accord", 1995).

The accord was signed between the State of Israel and the Palestine Liberation Organization in September 1993, and is commonly known as the "Oslo agreement". The agreement was designed to put an end to the conflict between the two sides, the PLO and the State Israel.

The agreement consists of an introduction and 17 clauses, but it can be summarized in six important principles:

1. The PLO acknowledges Israel and its right to exist and live in a peaceful environment.
2. The PLO denounces violence as a mean of achieving political goals.
3. Israel recognizes the PLO as a representative of the Palestinian people.
4. The PLO will lead an interim self-ruling government in parts of the West Bank and Gaza Strip for a period of five years.
5. A permanent solution should be reached within five years based on Security Council resolutions 242 of 1967, and 338 of 1973.[4]

[4] Resolution 242 defined the principles of achieving a lasting peace in the Middle East, and demanded the withdrawal of Israel from territories occupied in the last war. It also acknowledged the right of all states exist in peace, and demanded a just settlement to the refugee problem.

6. Issues such as the status of Jerusalem, Israeli settlements, borders and refugees will be agreed upon in the final solution.

The accord stated in its introduction, "*The State of Israel and the PLO agree that it is time to put an end to decades of confrontation and conflict*" ("Oslo Accord", 1995). This was the first time a common statement called for an end to the Palestinian-Israel conflict.

The agreement was designed to serve for a transition period of five years as stated in article V, point 1 "*the five year transition period will begin upon the withdrawal from the Gaza Strip and Jericho area*", this withdrawal materialized in May 1994.

The agreement faced problems in implementation from the day it was signed due to the lacking of detailed definition of areas to withdraw from, maps, dates and a schedule of withdrawals. (Rynhold, 2008) described the position of Israeli liberals on the failure of the agreement as a failure of implementation, due to the constraints that were inherent in the process from the start.

According to (Saad, 2013), the agreement was criticized by all leftist and religious Palestinian organizations, who accused the PLO leadership for recognizing Israel and its right to exist on 78% of historic Palestine, without gaining a similar recognition from Israel as to the right of the Palestinians to establish their own state on the remaining 22% of historic Palestine (The West Bank and Gaza Strip).

This agreement was also criticized by Dr Edward Said, one of the most respect Palestinian-American intellectuals. He described the agreement as "*an instrument of Palestinian surrender*", and also described Chairman Arafat in the White House ceremony as "*thanking every one for the suspension of most of his people's rights*". Said criticized the agreement for lacking, freedom, sovereignty and equality. He quoted the Israeli dove Amos Oz as saying "*This is the second biggest victory in the history of Zionism*". He considered the agreement as one sided, with the PLO recognizing the right of Israel to exist, and denouncing the right of the Palestinians to resist occupation, while

Resolution 338 asked all parties for a ceasefire and to start immediate negotiations based on resolution 242.

Israel did not recognize the right of the Palestinians for self-determination, including their right to live in an independent free state; and their right to resist occupation (Said, 1993).

So the Oslo agreement was seen by Said and others as an agreement of one party (Fatah), which was not put for a referendum, and did not take into account the criticism of a wide spectrum of the Palestinian community.

Some other sectors of Palestinians rejected the agreement by initiating a wide range of attacks on Israeli military and civilian targets, which resulted in the killing of tens of Israelis. This violent reaction was led by Islamic groups, like Hamas and Islamic Jihad. Those violent attacks aimed mainly to sabotage the peace process, and prove to Israel that the PLO is not the only Palestinian player.

On the other side, the agreement was criticized by all right-wing parties in Israel. According to (Fawcett, 2013), Some Israelis considered the accord as an Israeli acceptance of the partition of the "Land of Israel", and the implicit acceptance of the establishment of a Palestinian state on the historic land of Israel. The right-wing Israeli rejection of the Oslo Accord culminated in the assassination of the Israeli prime minister, and Oslo agreement partner, Mr Yitzhak Rabin, on November 4th, 1995, at the hands of an Israeli right-wing activist.

After the assassination of Rabin, the Oslo agreement was in serious danger of falling apart. The international community, especially the US, Jordan and Egypt, intervened to save it and a series of sub-agreements followed in order to define practical issues. The most notable of these are: the Cairo agreement of 1994, the Taba agreement of 1995 (also known as Oslo II), the Wye River agreement of 1998, and the Sharm Al-Sheikh agreement of 1999. Those agreements defined maps, and the schedule of withdrawal leading to self-rule, but they failed to make any real progress on the principles for the final settlement of issues such as the status of Jerusalem, settlements and borders.

The Cairo Agreement defined the areas of interim self-rule, in the city of Jericho in the West Bank and 60% of the Gaza Strip. This comprised only 1.6% of the size of the West Bank and Gaza. In addition it transferred the authority and responsibility in the fields of education, health, social security, tourism and direct taxation, to the newly formed Palestinian Authority, lifting the burden of such expensive services from the back of the

Israeli occupation, and meaning that the Palestinians were now responsible for service provision to areas they did not actually control.

The Oslo II agreement of September 1995 asserted that the principal goal of the peace process is the implementation of resolutions 242 and 338. In addition it defined areas of Palestinian interim government, by giving the Palestinians total control of all Palestinian cities in the West Bank and Gaza known latter as Area A, civil control of Palestinian villages known later as area B, while leaving Israeli control over the rest of the West Bank and Gaza, known later as area C. ("THE ISRAELI-PALESTINIAN INTERIM AGREEMENT", 1995).

According to this agreement area A comprised 9.6% of the West Bank and Gaza Strip, area B 18.8%, and area C 71.6%.

The Wye River agreement of October 1998, (IMFA, 1998), resulted in increasing areas A and B to be around 40% of the total area of the West Bank and Gaza leaving 60% under the total control of the Israeli occupation. The agreement emphasized the importance of security cooperation, and considered that "*their security cooperation will be based on a spirit of partnership*". It also called for the PLO national council, and local community leaders to meet to reaffirm the Palestinian recognition of Israel and to renounce violence. It also stated an agreement in principle to the establishment of a sea port in Gaza, and two safe passages between the West Bank and Gaza, but the latter two points never materialized. The agreement, noted the importance of reaching a final status agreement by May 4th 1999, which was never reached.

On July 24th, 2000, Chairman Arafat, and Prime Minister Ehud Barak, left Camp David, and returned to their native countries, announcing the failure of the Palestinian and Israeli sides to reach a final agreement on issues like the borders of the Palestinian state, the status of the Israeli settlements in the West Bank, authority in Jerusalem, especially the old city, and the right of return of Palestinian refugees. This date can be considered as the date of the collapse of the Oslo Agreement.

According to (Rynhold, 2008), the liberals in Israel attributed the failure of the Oslo agreement, to both parties lacking the will and skills to implement the agreements. So

they attributed the failure of the agreement to implementation problems rather than structural problems in the agreement itself. (Sela, 2009), meanwhile, blamed the failure of the agreement on the insufficient readiness of the two parties to sign a conclusive agreement. He described the main weakness of the Oslo agreement as lying in the transitory and inconclusive nature of the process, leaving open some core issues where there were huge gaps between the two sides. The delay in dealing with issues like Jewish settlements, the status of Jerusalem, borders and the right of return of the Palestinian refugees, carried the seeds of failure in the agreements themselves. In addition to that, on the Palestinian side, the peace process did not bring prosperity to the people, and the hope of establishing their own independent state faded out. This gave more power to the Islamic groups who had described the peace process as an illusion that served to increase poverty and which would never result in a Palestinian independent state. On the Israeli side, the agreement did not bring security, and the trust between the two people faded away. This situation resulted in the election of Benjamin Netanyahu a dedicated opponent of the Oslo accord. It also increased tension between Israel and the PA, and between the Palestinian population and the Israeli army.

Three months after the failure of the Camp David summit, in October 2000, a series of very violent confrontations erupted between the Israeli army and the Palestinian police force, what was to be known later as the second intifada. This situation resulted in the killing of tens of Israeli civilians, as well as hundreds of Palestinian civilians.

This violence resulted in the total collapse of the Oslo agreement, the reoccupation of areas A and B, by the Israeli army, and the death of Chairman Yasser Arafat in 2004, after three years of Israeli siege in his Ramallah headquarters, with the Palestinians accusing Israel of killing him by some unknown poison.

The collapse of the peace process was described by the Israeli Peace now movement, (Hellman, 2015), as being a result of high expectations materializing in a short period of time. The Palestinian hope to see a hold on settlement building, and the withdrawal of Israeli forces from 90% of the West Bank, proved to be far from being achieved. While the Israeli hope of the stoppage of military attacks on Israel, and lasting security arrangements proved to be a dream in the short run.

The last hope of peace was dashed after the failure of Palestinian president, Mahmoud Abbas, and Israeli Prime Minister Ehud Olmert, to agree on a final settlement. Since then, a series of Israeli right-wing coalition governments have prevented any agreement with the Palestinians.

The collapse of the peace process, and the failure of the Oslo accord, did not lead to the failure of the Palestinian Authority, however. The PA continued functioning, but with complete Israeli control over its territories, borders, roads and economy. The PA's duties are condensed into two tasks: looking after the services provided to the Palestinian inhabitants living in the West Bank and Gaza, such as health, education and social security, and managing security coordination with Israel. In other words, the PA kept its duties but lost most of its authority.

2.2.3 The economic side of the agreement (The Paris Protocol)

This protocol, signed in 1994, is officially known as "**Protocol On economic Relations between the Government of the state of Israel and the PLO"**, but is commonly known as the Paris Protocol, and is considered to be an annex of the Oslo agreement. It was negotiated by an Israeli and a Palestinian economist, private sector representatives, and PLO officials, and was signed by both parties on April 29, 1994. It was designed to define the economic relationship between the Palestinian Authority and the State of Israel, as well as the economic relationship between the PA and the rest of the world. The agreement was based on the assumption that it would only apply for the five-year interim period.

The Protocol consists of an introduction and eleven articles that defined all the economic terms and rules that the Palestinian economy would work under, as a corner stone in the process of establishing a just and lasting peace, and as the first step in helping the Palestinians to control their economy. As stated in the preamble of the protocol, "*This protocol lays the groundwork for strengthening the economic base of the Palestinian side and for exercising its right of economic decision making in accordance with its own*

development plan and priorities" ("Gaza-Jericho Agreement Annex IV-Economic Protocol", 1994).

The articles of the protocol define agreement in the following areas: import taxes and import policies, monetary and financial issues, direct taxation, indirect taxes and local production, labour, agriculture, industry, tourism and insurance issues. In other words it covers all issues influencing the Palestinian economy.

The following is a brief summary of the protocol:

- **Scope:** the protocol covers areas controlled by the Palestine Authority (PA) in the West Bank and Gaza Strip for the duration of five years as stated in article **I "***This protocol establishes the contractual agreement that will govern the economic relations between the two sides and will cover the West Bank and the Gaza Strip during the interim period*".
- **Import Taxes and Import Polices:** The Palestinian areas will adopt the same policies as Israel, including the application of the Israeli tariff book, regulations and standards, except for limited quantities of three lists of products as specified in article **III** of the protocol. List A1 and A2 defines products from Jordan, Egypt and other Arab and Islamic countries. These limited lists of products give the Palestinians control on Customs rates and standards, for limited quantities only. These quantities and lists have not been amended since the agreement was signed.
- **Monetary and Financial Policies**: As described in article IV of the protocol, the Palestinian Authority has the right to establish a monetary authority to regulate and supervise the operations of banks in the areas under its control. The protocol specifies that the New Israeli Shekel will serve as a method of payment, including for official transactions. The Palestinian Authority will not have the right to introduce a Palestinian currency without the prior agreement of the Israeli side, which has not materialized till now.
- **Direct Taxation:** The Palestinian Authority will have a full control over its direct taxes, this includes, but is not limited to, income and land taxes.

- **Indirect Taxes including VAT:** The PA will have a VAT rate of between 15-16%, and will not be allowed to have a difference of more than 2% from the Israeli level of VAT, while for the taxes on petrol, the PA is only allowed to differ in price by 15% from the level set by the Israeli government. The same applies for tobacco and alcohol.
- **Labour:** The protocol mandates the free movement of labour between PA controlled areas and Israel. Israel will transfer 75% of the income taxes collected from Palestinian workers to the PA.
- **Agriculture:** The protocol allows the freedom of movement of agricultural goods between Israel and the PA, that they carry the appropriate health certificates
- **Industry**: Industrial goods are free to move between the two sides without being subjected to customs or taxes, but will be subjected to Israeli standard institute regulations, and VAT is applicable at both sides.

Criticism of the Protocol

This protocol, although designed to serve for only five years, is still in place now, without any amendments. This has put limitations on the Palestinian economy and caused a great deal of criticism from the PA, Palestinian economists, the private sector and the international community. The critics of the protocol fall into two groups: the first criticize the protocol articles that put a cap on the development of the Palestinian economy, while the second criticize the implementation of the protocol, including the lack of procedures, which gave Israel the upper hand on the way the protocol is implemented, or even not implemented.

A host of organizations, economists, private sector representatives, and researchers have criticized the protocol and its implementation. In 2012 Ahmad Korei, the prime negotiator and signatory of the protocol, criticized the implementation mechanism of the protocol (Qoreiaa', 2012). The Palestinian Ministry of National Economy has also criticized the Protocol (Palestinian Ministry of National Economy, 2016), arguing for the

need for a new wave of negotiations to agree on a new economic agreement, especially given that, according to the Ministry and World Bank data, the agreement is preventing the Palestinian economy from achieving sustainable growth, and is inflicting financial losses on the economy. (Al-Shoabi, 2013) and (Husseini & Khalidi, 2013), among other researchers, have criticized the protocol in detail, with their main points summarized below:

- **Article I: Framework and scope of the protocol:** The protocol stated *"The protocol establishes a contractual agreement that will govern the economic relations between the two sides"*. According to critics, and reading the protocol in its full context, the articles in the protocol have only served to change the status quo relationship imposed by the Israeli occupation to a contractual relationship agreed by the two parties. That agreement improves neither the Palestinian economy, nor the living standards of the people, but rather legalizes the one-sided status of Israeli decisions controlling the Palestinian economy (Husseini & Khalidi, 2013). Critics also see that the agreement is rather general, lacking any implementation mechanism, and where every decision needs the agreement of both parties. With the Israelis preventing meetings of the Joint Economic Committee, refusing any amendments on the protocol, and refusing the implementation of some parts of the protocol. This has led to a one way implementation of the agreement (Al-Shoabi, 2013).
- **Article II: Joint Economic Committee (JEC):** The agreement required the formation of a joint committee to discuss and solve problems that might arise during implementation. The committee meetings were frozen after the second intifada, denying the Palestinians the possibility of making any amendments to the agreement, or deal with any arising problems. This has resulted, according to critics, in a one-sided implementation of the agreement (Qoreiaa', 2012).
- **Article III: Customs and VAT on imported goods:** This article states that the two sides are in a customs union. It also states that the PA will follow the

customs rates and purchase taxes decided by the Israel, except for a list of goods imported from Arab and Muslim countries that is limited by small quantities. The PA will also follow the VAT level set by Israel with the possibility of 2 points variation. The agreement also mandated the freedom of movement of goods between the two sides. Critics to the agreement argue that this customs union has harmed the Palestinian economy, with the Israelis setting the customs rates to the benefit of their larger economy, and with the Palestinians being unable to change such rates in order to protect the interests of its local industry and poor population. They also argue that the strict security policies set by Israel on the crossing points, and the delays it causes on the movement of goods, has cost the Palestinian economy severely. Finally, they argue that Israel's control of the customs rates, VAT, purchase and petrol tax, have resulted in a similar consumer price structure in both Israel and the PA areas, even though the GDP per capita of Israel is 20 times greater than that in the PA controlled areas, reinforcing poverty among the Palestinian population. (Husseini & Khalidi, 2013).

- **Article IV: Monetary and financial issues:** Although the agreement gave the PA the right to establish a Monetary Authority (PMA) which has "*the powers and responsibilities for the regulation and implementation of the monetary policies within the functions described in the Article"*. The other parts of the article, however, limited those powers and responsibilities of the PMA to only the supervision of local bank operations. The agreement denied the PA the right to issue a local Palestinian currency, hence preventing the PA from using monetary policies to boost the Palestinian economy. Critics also complain about the restrictions put in place by Israel on the movement of cash from West Bank banks to Israel banks, causing losses for the Palestinian local banks (Al-Shoabi, 2013).
- **Article VII: Labour**: The agreement provided for the freedom movement of labour between the two sides, in order to help the Palestinians to export labour to Israel, and reduce the trade balance with Israel. Meanwhile, Israel used security concerns to decide on the number of workers given permits to work in Israel, and used this as a political tool against the Palestinians. This policy had two side-

effects; on one hand it caused high unemployment when security restrictions are implemented by Israel, and on the other hand, it has caused the migration of Palestinian skilled labour when restrictions are lifted. This has caused anarchy in the Palestinian labour market and significant problems for the local industrial, agricultural and construction sectors. (Palestinian Ministry of National Economy, 2016).

- **Article VIII: Agriculture:** The agreement provided for the freedom of "*movement of agricultural produce, free of customs and import taxes, between the two sides"*. Israel used this clause as a tool to destroy the Palestinian agricultural industry, by flooding the market with products during seasonal times, causing huge losses to Palestinian farmers, which deterred farmers from planting their lands again, while the Israelis prevented Palestinians farmers from exporting their products to Israel without a valid export license (Palestinian Ministry of National economy, 2016).

  In addition to the above, critics, including PA officials, see the following disadvantages in the implementation of Paris Protocol:

  - The protocol was designed to serve for five years, but it is still in place now without any amendments, making it out of date, and needing some serious amendments, or even a new agreement.
  - Israel did not implement some parts of the agreement, for what is declared to be security reasons.
  - The refusal of Israel to organize meetings for the Joint Economy Committee denied the PA the right to discuss problems arising through the implementation process.
  - Agreement did not define the meaning of "security measures", and left this term open to Israel to explain and implement it the way it decides. This has put massive restrictions on the free movement of Palestinian goods and personal as described by the Palestine Shippers Council, (2014). A World Bank Report (2016) estimated the annual fiscal losses of the PA as a result of the customs and VAT collection procedures set out in the Paris protocol as being in the range of US$ 285 million, or 2.2% of the Palestinian GDP. The

report asked for Palestinian-Israeli discussion to amend and make improvements to the Paris Protocol.

2.2.4 Sequence of events:

Below is a summary of the sequence of events, such events can explain some of the changes in economic performance of the PA, as economic performance will be affected by the level of violence and political stability. The two former factors are considered by many to be the major factors affecting economic performance in the PA controlled areas. These events cover the period of 1897-1993, but concentrate more on the events of the period 1994-2010, since this is the period we are studying in this research. The period before 1994 is listed to give a better understanding of the conflict between the Palestinians and the Zionist movement.

August 1897: The First Zionist Congress held in Basel, Switzerland, with a declaration, that the Jewish community in the world will work to establish a Jewish state in Palestine. This was the first time an official body of the Zionist movement had declared their interest in Palestine as the future state of the European Jews.

February 1917: Lord Balfour declared the intention of the UK to help Jews establish a state of their own in Palestine. This statement explained the British oppression to the Palestinians in the coming years, and the help they gave to the Zionist movement in Palestine.

December 1917: The British army occupied Palestine, imposing military rule. By this occupation, the British were able to transform the Balfour Declaration from paper to reality.

March 1920: The San Remo Summit placed Palestine under British mandatory rule and confirmed the pledge of the Balfour declaration. In this summit, all the victorious parties of World War I adopted the British policy on Palestine.

April 1929: Large Palestinian demonstrations against the British military presence and Jewish immigration resulted in clashes with the British army and Jewish settlers, with hundreds of causalities from all sides.

1936-1939: The Great Palestinian Revolution: A mix of armed and peaceful Palestinian revolt against Jewish immigration and the British Mandate. This revolt lasted for three years and only stopped after World War II started.

May 1948: This is a major date in Palestinian and Israeli history. It is described by the Palestinians as the Nakba (catastrophe), when the majority of the Palestinian population fled their homes and became refugees in the surrounding Arab Countries. This date is described by Jewish immigrants to Palestine as Independence Day, when the State of Israel was established.

January 1950: The West Bank was declared legally to be part of the Hashemite Kingdom of Jordan after a general election was held for the unified kingdom. Although this action by Jordan simplified the life of the Palestinian immigrants and gave them a passport that gave the freedom of movement, it was considered by some critics as a measure that undermined the national aspiration of the Palestinians.

June 1967: Yet another major date in the history of Palestine, called the Naksa (defeat), when Israel occupied the West Bank and the Gaza Strip, thereby placing all of historic Palestine under Israel control. This marked a new phase in the life of the Palestinian people, who now for the first time lived under real direct occupation.

August 1982: The PLO was defeated in Lebanon, and moved its fighters and leadership out of Lebanon, starting a decline in control over events in the occupied West Bank and Gaza Strip. Through this defeat, the PLO lost the last of their bases bordering Israel, and for the first time they were prevented from using their host countries in any military act against Israel.

October 1991: The PLO agreed for a delegation from the West Bank and Gaza to start peace negotiations with Israel. This marked the start of attempts to find a peaceful settlement between Israel and the Palestinian people.

1993 The signing of the Oslo Agreement: The signing of the agreement was considered to be an historic event and a turning point in the relationship between Palestinians and the State of Israel, as it was the first agreement between the two sides and embodied a vision of ending the long lasting conflict between them.

1994, PLO forces in Gaza and Jericho: On May 10th, 1994, the first PLO regiment entered the Gaza Strip, followed by Jericho,[5] to start the establishment of the Palestinian Authority. These forces entered these territories with their light weapons to form the nucleus of the Palestinian police force.

1994, The signing of the Paris Protocol: This protocol is considered to be the main document between the PA and Israel in terms of the organization and regulation of the Palestinian economy and its relations worldwide. This protocol was designed to help the newly established Palestinian entity in planning and controlling its economy during the five year transitional period.

1995, PA control of West Bank cities: By the end of 1995, the PA had expanded its control to cover all Palestinian cities and major villages in the West Bank. This is considered to be the first point in establishing PA governmental institutions. This was accompanied by the transfer of responsibility for public services from Israel to the PA, including health, education and other services.

1996, The election of the first Palestinian legislative council (PLC): The first ever democratically elected Palestinian legislative body. This was considered to be the cornerstone in the process of building a Palestinian state and economy, the council had the power to set up economic laws that are in line with the Paris protocol.

1997, The first signs of violence and closures: Limited military clashes started between the PA police and the Israeli army, after the uncovering of several tunnels being dug under the Al-Aqsa mosque in Jerusalem, the holiest religious place for Palestinian

[5] A small city in the West Bank with less a population of less than 30,000 inhabitants.

Moslems, and the third holiest place for Moslems worldwide. Israel reacted with strict restrictions on the movement of Palestinian goods and personal, as well as on the limitation of labour movement to Israel. This violence lasted only for few days, and it was contained by both the Palestinian and Israeli leadership.

2000 The Second Intifada: After two years of political and security stability, and as a result of the failure of the Palestinian-Israeli negotiations on the final status, a string of violent acts started all over the West Bank and Gaza Strip, which resulted in the killing of tens of Israeli and Palestinian civilians. Israel reacted violently, and placed all Palestinian cities and villages under strict blockade, destroying large strips of roads connecting Palestinian areas, which resulted in strict limitations on movement and total closure of Palestinian areas.

2002 Reoccupation of Palestinian controlled areas: Due to the continuing violence, Israel stormed all Palestinian cities and villages, destroying Palestinian governmental buildings, and a large part of Palestinian roads and infrastructure, imposing long curfews, restricting the movement of people and goods in and out of PA controlled areas, as well as preventing Palestinian workers from working in Israel. This was marked by some as the first step in the collapse of the Oslo Accord.

2003-2005 Aftermath of the second intifada: The results of Israeli closures to the Palestinian areas were catastrophic, and endangered the existence of the Palestinian Authority. Accordingly, the international community forced Palestinian president Chairman Yasser Arafat to appoint a new government, with the responsibility of making the necessary changes in both security and financial systems. In order to push this forward, more foreign aid was pumped into the Palestinian budget to prevent the PA from collapsing and declaring bankruptcy. This was marked the end of the Chairman Arafat era, since he died in unknown circumstances in November 2004.

2006 The Islamic Movement Hamas in power: As a result of a free general election in January 2006, Hamas won over 60% of the seats in the PLC, and its leader Mr Haneih

was appointed as Prime Minister. Israel responded by stopping the transfer of customs duty and VAT money collected on behalf of the Palestinian Authority. The donors stopped their aid to the PA, and the latter was not able to pay salaries to its employees, meaning that its activities were paralyzed to a large extent.

June 2007, The separation of Gaza and the West Bank: The Islamic movement Hamas, although in power, assumed military control over the Gaza Strip through its strong militant force, cutting ties with the West Bank. This act resulted in the establishment of two separate entities, politically and economically, with the West Bank government continuing spending on over 60,000 employees in Gaza, including the continuation of spending on the fields of education, health and social affairs.

2.2.5 Consequences of the agreements and the failures in implementation.

The Oslo Accord and the other agreements that followed it resulted in some dramatic demographic changes, limiting movement between the West Bank and Gaza, and dividing the West Bank into three areas for the first time in history, ultimately limiting PA control to only 20% of the West Bank and Gaza.

Demography

The West Bank and Gaza Strip, known as the Palestinian territories in the Oslo Accord, are the principle areas for this research.

The total area of the Palestinian territories is 6020 square kilometres with the West Bank having an area of 5,655 square kilometres and Gaza merely 365 square kilometres (UNCTAD, 1994).

The estimated population of the Palestinian territories in 2015, as per the Palestinian Bureau of Statistics, is 4,682,467 inhabitants, with the West Bank comprising 61.1% of this population (2,862,485 inhabitants), and the Gaza Strip 38.9% (1,819,982

inhabitants). The population density in Gaza was 4,986 inhabitants per square kilometre in 2014, the highest population density in the world (see Table 2.2). ("PCBS, 2015).

Table 2-2 **Palestinian estimated population 1997-2016.**

	Palestinian Territories	Palestinian territories Population Growth rate	West Bank	W.B Population Growth rate	Gaza Strip	Gaza Population Growth rate
1997	2,783,084		1,787,562		995,522	
1998	2,871,568	3.08%	1,838,807	2.79%	1,032,761	3.61%
1999	2,962,226	3.06%	1,891,171	2.77%	1,071,055	3.58%
2000	3,053,335	2.98%	1,943,658	2.70%	1,109,677	3.48%
2001	3,138,471	2.71%	1,992,577	2.46%	1,145,894	3.16%
2002	3,225,214	2.69%	2,042,306	2.43%	1,182,908	3.13%
2003	3,314,509	2.69%	2,093,381	2.44%	1,221,128	3.13%
2004	3,407,417	2.73%	2,146,400	2.47%	1,261,017	3.16%
2005	3,508,126	2.87%	2,203,738	2.60%	1,304,388	3.33%
2006	3,611,998	2.88%	2,262,735	2.61%	1,349,263	3.33%
2007	3,719,189	2.88%	2,323,469	2.61%	1,395,720	3.33%
2008	3,825,512	2.78%	2,385,180	2.59%	1,440,332	3.10%
2009	3,935,249	2.79%	2,448,433	2.58%	1,486,816	3.13%
2010	4,048,403	2.80%	2,513,283	2.58%	1,535,120	3.15%
2011	4,168,860	2.89%	2,580,168	2.59%	1,588,692	3.37%
2012	4,293,313	2.90%	2,649,020	2.60%	1,644,293	3.38%
2013	4,420,549	2.88%	2,719,112	2.58%	1,701,437	3.36%
2014	4,550,368	2.85%	2,790,331	2.55%	1,760,037	3.33%
2015	4,682,467	2.82%	2,862,485	2.52%	1,819,982	3.29%
2016	4,816,503	2.78%	2,935,368	2.48%	1,881,135	3.25%

Source: (PCBS, 2015)

The West Bank and Gaza Strip are not geographically connected; they are separated by Israel, with a distance of around 75 km between Gaza and the nearest West Bank city of Hebron. Commuting between the two areas needs the permission of Israel, with only Israeli cars and trucks allowed to commute between the borders of the two areas, and hence goods are only transferred in a back to back operation, and through Israeli trucks only.

In addition, the Cairo and Oslo II agreements divided the West Bank into three distinctive areas, A, B, and C, as per the following definition:

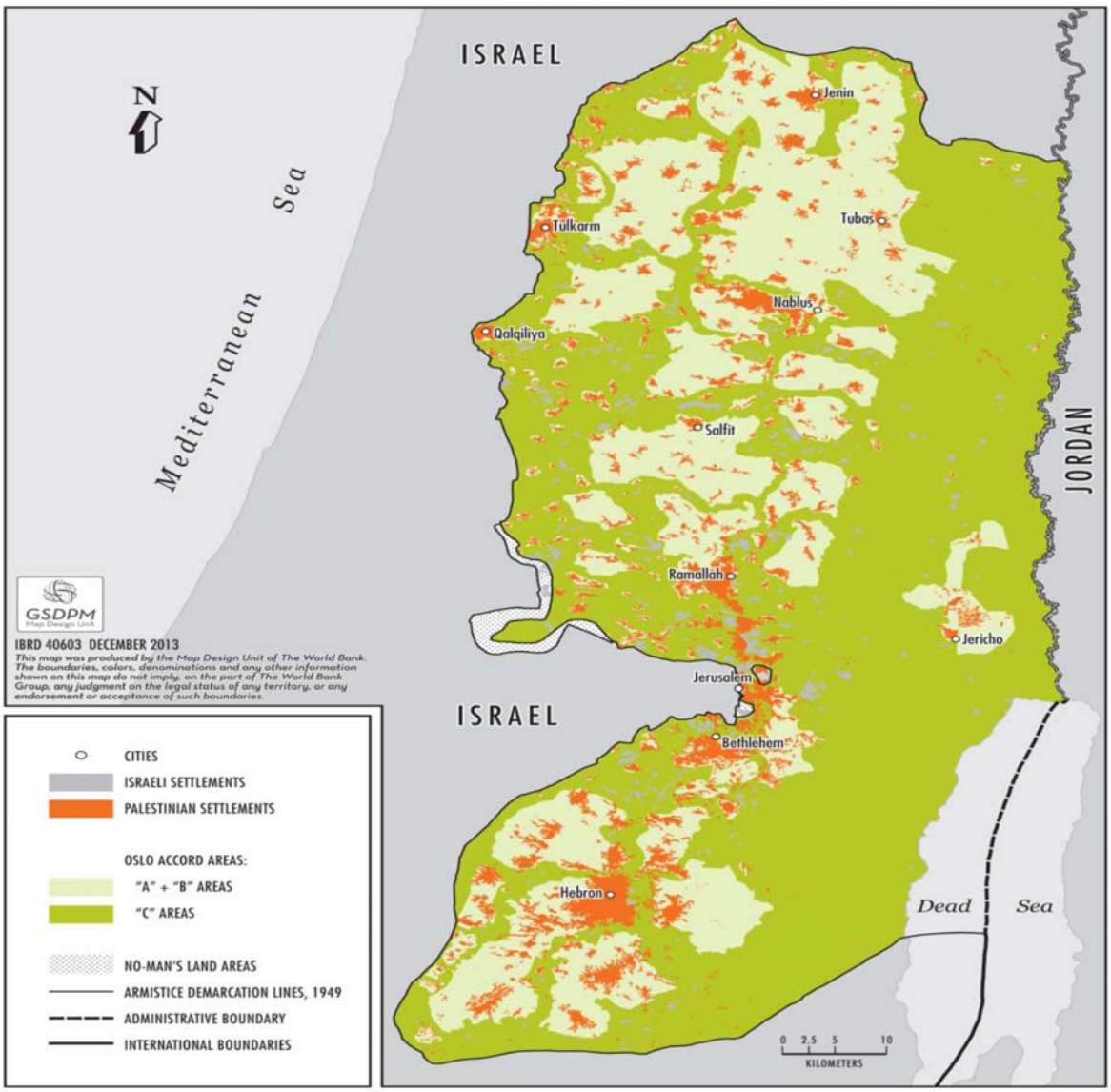
> **Area A**: Full civil and security control resides with the Palestinian Authority. Currently, this area comprises of 18% of the total area of the West Bank; this area includes all major Palestinian cities but has no geographical continuity. This thesis will mainly discuss the economy of Area A in particular, since it's the only area that Palestinian have full control of.
>
> **Area B**: Has civil Palestinian control and Joint Palestinian-Israeli security control. This means that any Palestinian police intervention against crime in area B needs the prior approval of the Israeli security forces. This area comprises 21% of the West Bank and includes most of the Palestinian villages. Although the economy of this area is important, but it comprises a small part of the total Palestinian economy.
>
> **Area C**: Has a full Israeli control over security, planning and construction, it comprises 61% of the West Bank in terms of area, but only around 150,000 Palestinian inhabitants living there; a merely 5.2% of the total West Bank population. This area, as per the United Nations Office of Coordination of Humanitarian Affairs (OCHA), includes all the agricultural land of the Jordan valley, all major roads between Palestinian towns and villages, and most of the water and natural recourses. (*United Nation-OCHA*, 2011)a.

According to the OCHA Report (United Nation-OCHA, 2011)a:

"*70% of Area C is off-limits to Palestinian construction, 29% is heavily restricted*", and only 1% has been planned for Palestinian development by the Israeli Civil administration.

This area is full of Israeli settlements, with around 135 settlements, housing around 300,000 settlers. The planning expansion area around those settlements is nine times the area of the built areas. Fig. 2.1, as published by the IBRD shows a map of the geography of areas A, B and C, where areas A and B are small entities swimming in the ocean of Area C. This area, although it has most Palestinian resources including water, mineral and agricultural resources, its contribution to the Palestinian economy is very minimal. This is due to the full Israeli control over this area, and refusal to give the Palestinians any permits to work in this area.

Figure 2-1 West Bank map as per areas division



Such facts have dramatically affected the growth of the Palestinian economy and increased Israeli control.

A World Bank report in 2013, estimated the direct benefits of the PA control of Area C in terms of the additional output of agriculture, Dead Sea minerals, stones, construction, tourism and telecommunication to be in the range of US$ 2,276 million per annum. The same World Bank report also indicated that the lifting of restrictions over the West Bank, would result in some indirect benefits to the tune of US$ 1,500 million in value added. This would result in a revenue to the PA budget of some US$ 800 million, and would reduce the budget deficit by 56%.

Checkpoints and freedom of movement

One of the major problems facing the Palestinian economy is the free flow of goods and people. As per the United Nation OCHA report of 2011 and Btselem, (United Nation-Ocha, 2011)b there are 522 checkpoints and roadblocks in the West Bank; of which 27 are permanently manned, 26 controlling the crossing between Israel and the West Bank, 16 temporarily manned, 12 internal checkpoints in the Palestinian city of Hebron, and hundreds of physical obstacles in the form of concrete blocks, piles of dirt, or trenches, which prevent access from and to Palestinian villages and cities. In addition, the Israeli army controls more than 495 ad-hoc flying check points on average. Furthermore, some 200,000 people from 70 villages are forced to use detours between two to five times longer than the direct route to their closest city due to movement restrictions, one or more of the main entrances are blocked to Palestinian traffic in ten out of eleven major West Bank cities, and four of the five roads into the Jordan Valley are not accessible to most Palestinian vehicles.

This has obviously posed a serious obstacle to the Palestinian economy, increasing the cost of transportation, and causing especial problems for the transportation of perishable agricultural produce.

Infrastructure

The Quartet in the Middle East[6] working to promote peace between Israel and the Palestinians considered that investment in infrastructure in the PA controlled territories was the prime factor in the development of the Palestinian economy. They published a report in March 2014 (Quatret, 2014), describing the status of the infrastructure of the PA controlled areas. Also, a European Parliamentary committee published a report (European Parliament, 2016) on the status of some important infrastructure areas and the World Bank has discussed these issues in most of its published quarterly reports. Most economists have described this issue as the most important for sustainable growth. The Quartet and European Parliament reports summarized the most important infrastructure issues needed for a sustainable Palestinian economy as being the water supply, energy and electricity supply, telecommunications and the transportation network.

Water supply

According to the European Parliament report (European Union, 2015), Israel controls over 80% of the water supply in the West Bank and Gaza Strip. This is due to authorities given to Israel by the Oslo II agreement to dig new wells and establish the necessary infrastructure unilaterally, while denying Palestinians this right. The Palestinians share two aquifers with Israel, the mountain aquifer and the coastal aquifer, with 80% of the recharge to the former coming from rain on the West Bank, while the Palestinians using only 15% of its capacity, and 18% of the capacity of the coastal aquifer.

The average consumption of the Palestinian living in the West Bank is 73 litres/capita/day, and 90 litres/capita/day in Gaza, compared to Israeli consumption of 353 litres/capita/day, and Israeli settlers' consumption of 900 litres/capita/day (European Union, 2015). The Palestinian consumption is entirely based on the water in the two aquifers, while Israel is only 60% dependent on these renewable water sources, with 40% taken from water waste treatment, and water desalination.

[6] This is the following group working on the Palestinian issue: UN, USA, EU and Russia.

According the Quartet's report on water, (Quartet, 2017), there is a shortage of 80 million cubic metres of water in the West Bank, which is expected to rise to 250 million cubic metres in 2020, this is compared to the present consumption of 140 million cubic metres.

In Gaza, the picture is even worse, with the coastal aquifer being over used and polluted, the water gap in Gaza is expected to be some 74% of the available water in the aquifer.

Based on the above figures, serious investment is needed in the water sector, estimated by the Quartet's report to be in the range of US$ 1.6 billion in the next six years. This includes the rehabilitation of the old and inefficient water network, the establishment of waste-water plants and desalination plants, as well as the pumping of more water from the mountain aquifer.

Energy and electricity supply:

It is well known that the sea offshore of Gaza is rich in natural gas resources (**B**oersoma & Sachs, 2015), and some parts of the West Bank are rich with oil resources. With over 60% of the West Bank being in area C and controlled by Israel, and the Gaza sea offshore also controlled by Israel; the Palestinians have no power to extract gas or oil.

For electricity, the West Bank buys 98% of its electricity from Israel, and Gaza buys 55% of its electricity from Israel.

According to the Quartet report of 2013 on energy, (Quartet, 2014) and the (World Bank, 2007), the picture in terms of electricity does not look bright. Although, there is no shortage in electricity supplies in the West Bank, with Israel exporting more than 850 MW to the West Bank, starting 2012 Israel has refused to increase the amount of electricity supplied to fully meet the needs resulting from population growth. The needs for the next four years were estimated by the quartet to grow by 50%, and if Israel refuses to increase electricity exports to the West Bank to fulfil this need, and if investment in this field does not materialize, then electricity blackouts might occur.

The situation in Gaza is more complex, with blackouts of 8-12 hours already occurring, the electricity need in Gaza is 410 MW, 120 MW of which comes from Israel, while

Egypt exports 17 MW and 80 MW are generated locally. With the need for electricity increasing, however, more blackouts are expected in Gaza.

The solution for this crisis does not lie in the reduction of consumption, since PA controlled areas already consuming far less than developed countries. Palestinian consumption per capita is 1,640 KWH/year, compared with consumption in Israel of 6,956 KWH/year and 13,394 KWH in the US, and 7,729 KWH in France, as of World Bank data of 2010.

The solution lies in investment in this crucial sector. It was estimated by the quartet that some US$ 1.5 billion needs to be invested in the rehabilitation of the distribution grid system, the development of new power sub-stations to accommodate increased imports from Israel, the rehabilitation of the power generating plan in Gaza, as well as the development of two new generation plants in the West Bank.

Telecommunication:

As per the (Quartet, 2014), the contribution of telecommunications and IT to GDP in 2014 was US$ 504 million, some 4% of the current GDP, with telecommunications comprising 70% of that contribution. There are two mobile companies, and one fixed line company (PALTEL), with the latter controlling all land lines, including ADSL internet lines. There are also 11 internet service providers, offering high speed fixed line broadband, accessible for businesses.

Voice and SMS penetration is 77%, compared with 120% in Israel and 150% in Jordan. This is accompanied by low data penetration, with the Internet income of mobile companies not exceeding 11% of their total income. This is due to the fact that the Israelis are not allowing Palestinian companies to operate 3G and 4G internet.

It is also worth noting that internet is bought by local ISPs from Israel, and Israeli mobile companies operating in the Palestinian areas without being licensed or registered at the PA ministries, and they occupy not less than 20% of the market share.

Transportation Network:

Currently, there is no functioning airport, seaport or railway network in the West Bank and Gaza Strip. The only airport in Gaza was completely destroyed by the Israeli army in 2001, only a few years after it was established.

Palestinians use the Israeli sea ports for their exports and imports, while using Jordanian airports for some export and passenger movements, after crossing the only land crossing point between PA controlled areas and Jordan. This crossing point is totally controlled by Israel, and operates for 14 hours a day, except for Saturdays and Fridays where it operates for only four hours.

The only transportation mode used in both of the West Bank and Gaza Strip is road transport. The current road network in the West Bank, according to (Awaddallah & Atrash, 2014), is 11,889 Km in length, connecting 667 residential communities. 53.2% falling in areas A and B, and hence are under Palestinian control, while 46.8% in area C, and hence under Israeli control. All roads connecting major cities are in area C, and are full of manned and flying Israeli check points, controlling and delaying movement between the cities.

In Gaza, according to the same source, the road network is 3,219 Km in length, 77% of which are unpaved dirt and sand tracks, while 12% are off limit to Palestinian use, as they fall in the Israeli security zone surrounding Gaza.

Gaza's only commercial crossing point is with Israel, where goods are subjected to lengthy security checks, which increases the cost of transportation. The Palestine Shippers Council (2014) described the cost of transporting one container from Ashdod port in Israel, some 37 km away from Gaza is double, and sometimes triple, the cost of shipping the container from China to Ashdod.

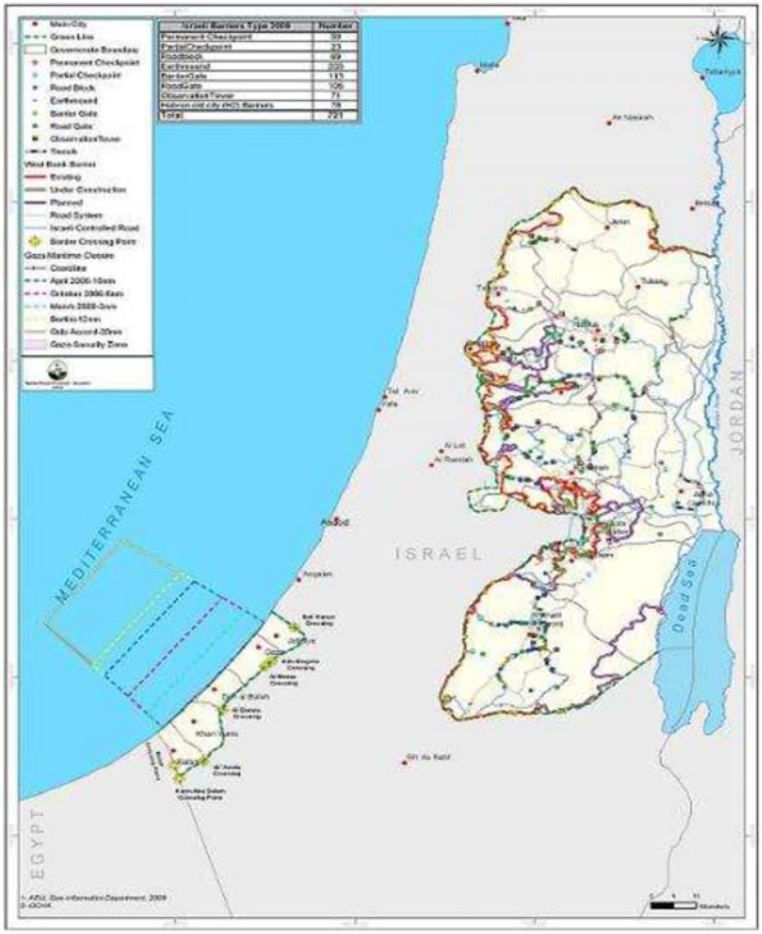
Gaza's passenger and commercial crossing with Egypt has been largely closed for the past ten years, only operating in a limited and random way, mainly to facilitate the crossing of some humanitarian aid.

The West Bank has four commercial crossings with Israel, and one crossing with Jordan, all controlled by Israel. All goods imported to the West Bank are subject to strict Israeli security checks.

Roads that connect the West Bank and the Gaza Strip are Israeli roads, and hence no Palestinian cars can use them, meaning that transportation between the two areas must be conducted using Israeli cars and trucks, in a back-to-back operation.

Fig. 2.2 shows the map of the Palestinian transportation system, revealing that all the roads connecting cities in the West Bank lie in area C, and that the roads connecting the West Bank and Gaza lie in Israel.

Figure 2-2 Palestinian transportation system map



Source: (ARIJ, 2010)

2.3 Chapter Two Summary:

Based on the above it can be concluded that the Palestinian economy is not like any normal economy, but is a unique case for the following reasons:

- Palestine was never an independent state, and never had an independent economy, even after the establishment of the PA.
- The Palestinian Authority has no control over its borders, nor the internal road network connecting its major cities; with Israel controlling all ports and connecting roads. Israel has control of the movement of goods and people both internally and externally.
- The PA has no control over its economy, being in a customs union with the larger economy of neighbouring Israel, and with the latter controlling all aspects of imports, exports and indirect taxation, including its control of customs tariffs and VAT rates, as well as rates on tobacco and fuel. This lack of economic control is further reinforced by the lack of a Palestinian currency, with the Israeli Shekel being the main currency used in day-to-day dealings, and with the Jordanian Dinar and American dollar also used, especially in real estate.
- Israel has total control of more than 60% of the area of the West Bank, with those areas having the majority of the Palestinian resources, including and not limited to water, minerals, agriculture, energy and tourism.
- The West Bank and Gaza Strip are geographically separated, with Israel lying between the two areas, and imposing restrictions on the movement of people and goods between, preventing many items from reaching Gaza, including building materials.

Thus, when studying the Palestinian economy in chapters 3, 4 and 5, the uniqueness of the Palestinian economy must be taken into consideration.

3. Chapter 3: Descriptive Analysis of the Palestinian economy.

3.1 Introduction.

This chapter consists of two major sections. The first will discuss the overall economy of Palestine (both the West Bank and Gaza Strip, or what is known the PA controlled areas). The second part will discuss the economies of the West Bank and Gaza as two separate entities. The reason for such a division is to show the gap that has been built between the two areas over the years. Gaza contribution to the PA GDP dropped from 34% in 1994 to 22.9% in 2014, with Gaza GDP per capita dropping from US$ 1,346 in 1994 to US$ 971 in 2014, this decrease is compared to an increase of more than US$ 800 in the West Bank between 1994-2014. So, the discussion of the two areas separately shows that Gaza economy became a burden on the West Bank over the years. Therefore, the measure to be taken must be different in the two areas if the political status does not change.

Data for the PA controlled areas was taken from the Palestinian Central Bureau of Statistics (PCBS, 2015) from 1994-2014. Before 1994, the PA did not legally exist, and Israel did not publish accurate data for the West Bank and Gaza, so our descriptive analysis will only cover the 21 years' time series from 1994 to 2014. Some data was only available from 1997, however, and the balance of payments was only available from 2000. Although the PA budget was only available on the Ministry of Finance website for 2009-2014, it was also officially available for 1996-2014 on the website of the Palestinian Monitory Authority (PMA, 2015), accordingly, the data published on the PMA website was used in this analysis. The data on the budget will only be used in the descriptive analysis.

Economic indicators will be discussed for the 21 years of the PA (1994-2014). The discussion will be divided over three periods of time, with each period characterized according to its unique conditions, with political stability and violence being the main factors.

The Period of Hope 1994-1999: This period was characterized by hope of peace, both on the local and international level. Investment started to come into the country with the hope of prosperity. This was helped by political stability and a positive atmosphere.

During this period, the Palestinian Authority (PA) was to be trained on how to run the economy of the future Palestinian state. By the end of 1999, the PA should have acquired the experience needed to run the country and economy, with both parties reaching a final agreement as stated in the Oslo Accord (Nashahiby, Yitzhak, & Rock, 2015).

Although, this period was characterized by hope, it was also characterized by nepotism and favouritism in the recruitment of public employees. This was a result of the PLO's plan to appoint mainly political and military figures to compensate them for their long history of struggle against Israel. This resulted in the formation of departments and ministries that lacked experience and the will to learn. By the end of 1999, the PA did not have the capacity to run the country efficiently (Shoukair, 2013).

Nonetheless, this period is considered to be the best of the three periods, with high growth, a high contribution from agriculture and manufacturing to GDP, minimal budget deficit and minimal aid.

On the political level, unfortunately no final agreement was reached between the PA and Israel, which resulted in a very tense atmosphere between the two parties. The tension intensified and violence started to break out.

Period of violence 2000-2002: With the end of the five year interim period approaching, and with no agreement having been reached on the final status, tensions started to increase, leading eventually to an explosion of violence starting in September of 2000 and lasting for three years. This was met with a fierce Israeli reaction. Israel bombed Palestinian headquarters in all cities, enforced curfews, stormed PA controlled areas, destroyed roads between Palestinian cities as well as freezing the transfer of customs duty and tax money collected on behalf of the PA.

Israel also assumed military control over the whole of the West Bank, and severely restricted the movement of people and goods, and for the first time ever, movement

between Palestinian cities was not allowed without a special permit from the Israeli military authority.
In addition, Yasser Arafat, the Palestinian president, was put under military siege in his Ramallah headquarter, until he died in Nov 2004 in suspicions circumstances.

This period was characterized by violence and political instability, closures, and more importantly, the collapse of hope, and hence a sharp decrease in investment and in growth, and a huge increase in poverty and unemployment. Middle East web, 2008)This period was also associated with a huge increase in aid, especially for the budget, in order to help the running of the PA, since without this aid the PA could have collapsed.

Period of State Building 2003-2014: The international community forced Yasser Arafat, the Palestinian president, to appoint a new prime and finance ministers, with the World Bank stepping in to guide and monitor the Palestinian economy. This was accompanied by the donation of large sums of aid, both directly to the PA budget and to international organizations working in the Palestinian controlled areas (World Bank, 2004).

In 2006, the victory of the Islamic Movement, Hamas, in the general election resulted in another freezing of the transfer of Palestinian customs duty and tax revenue to the PA, lasting for almost one year.

In 2007, Hamas led a military takeover of Gaza, resulting in the existence of two Palestinian governments, one in Gaza and one in the West Bank. As a result, the World Bank, US and the EU, renewed their support to the Palestinian government in the West Bank (Samir Abdullah & Kanafani, 2007)a

Israel, however, responded by imposing a very strict blockade on Gaza, restricting the movement of people and goods from or to Gaza, as well as preventing some essential commodities from going into Gaza. This resulted in a sharp drop in growth, and an increase in poverty and unemployment, especially in Gaza (Samir Abdullah & Kanafani, 2007)a.

This stage was characterized by the building of state administrative and financial systems in the West Bank, and hence when we talk about state building, this discussion is restricted only to the government in the West Bank. While Gaza remained under Hamas

control, the government in the West Bank continued its spending on several necessary services in Gaza, such as health, education and social security, as well paying the salaries of over 60,000 employees. (Samir Abdullah & Kanafani, 2010)

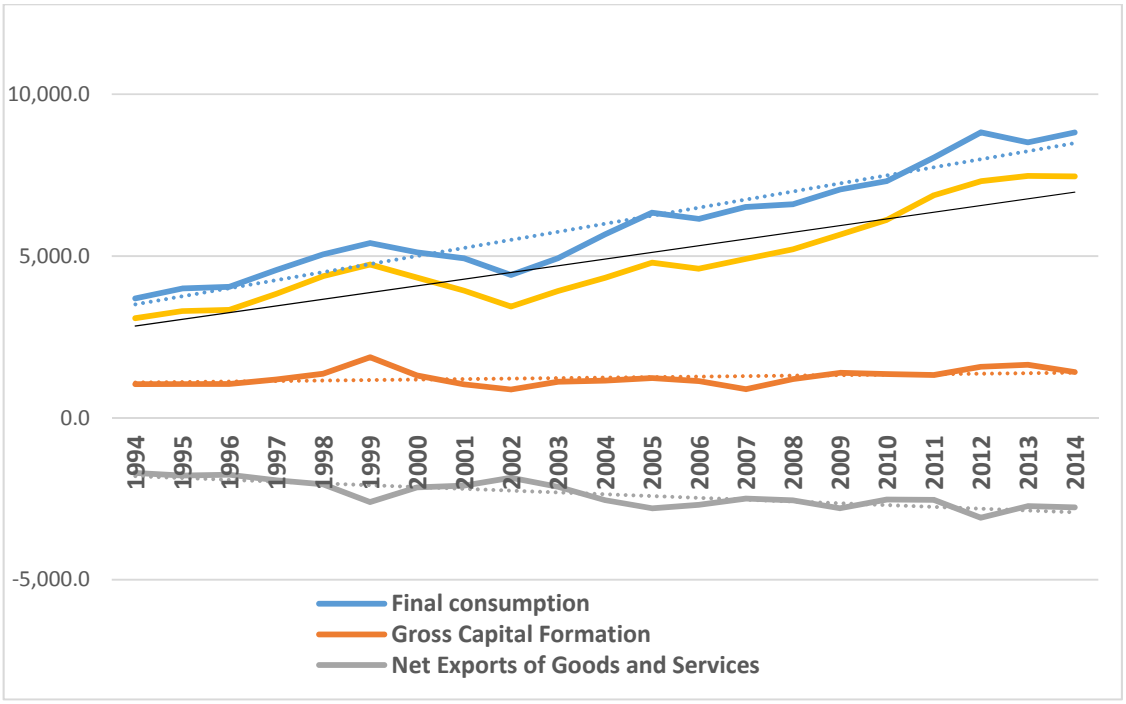
3.2 Descriptive Analysis of the Overall Economy of Palestine (The West Bank and Gaza Strip or the PA Controlled Areas)

3.2.1 General Description.

The Palestinian economy is considered to be an under-developed weak economy, with GDP per capita for the year 2014 of US$ 1,737, at 2004 prices, compared to an Israeli GDP per capita of US$ 24,451 (World bank, 2017) a.

Graph 3.1 describes the status of the three periods described above, with the GDP increasing in the period of hope, decreasing in the period of violence, and then increasing again in the period of state building.

Graph 3-1 GDP by expenditure



Source: (PCBS, 2015)

This rhythm will continue as it is discussed in the following sections, with economic status improving in the first period, deteriorating in the second period, and then fluctuating in the third period.

The average contribution of the West Bank to the total GDP, over the 21 years of study, was 69.3%, while the GDP of Gaza contributed to only 30.7%. Gaza's contribution declined over the course of these years. In 1994 it was 35.7%, but has dropped to merely 23.9% in 2014, reaching a minimum of 23.8% in 2008 (PCBS National General Accounts).

The graph also shows clearly that both GDP and consumption in absolute values had an increasing trend, increasing almost at the same rate, while the GCF was essentially flat. Exports, meanwhile, decreased during this period.

3.2.2 Growth.

The growth in the PA controlled areas was greatly affected by political instability and violence. The growth was positive between 1994-1999, negative in the period 2000-2002, and fluctuating with a positive trend in the period 2003-2014, as shown in graph 3.2.

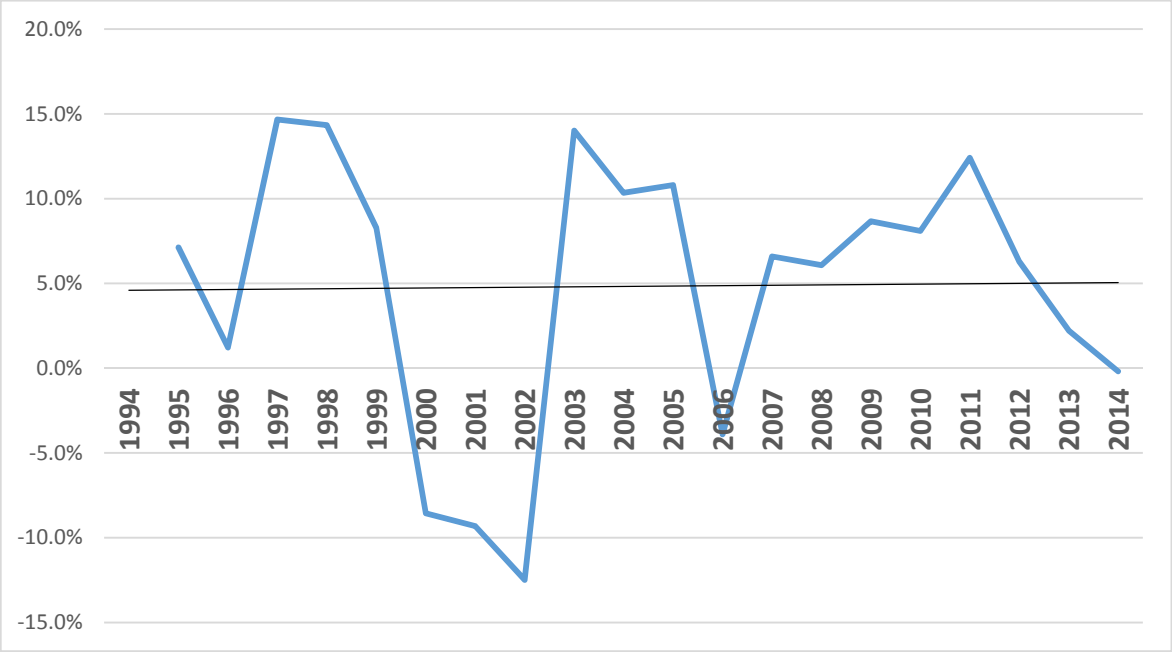
In the period 1994-1999 the growth in the PA controlled areas totalled 53.9%, with the maximum rate of growth in 1997 and 1998, with an annual growth of 14.7%, and 14.3% respectively. The economy was therefore picking up, despite the lack of planning and lack of aid. According to the World Bank data, aid was moderate during this period, amounting to a total of US$ 3.3 billion, an annual average of US$ 550 million, some 14.5% of the GDP; most of which was targeting the United Nations, international and non-governmental organizations, with very small amounts directed to the PA budget, mostly for the purposes of supporting development projects, with only 2% spent on the running expenses of the Authority.

This shows that the economy and growth was mainly driven by political stability, the hope of achieving peace in the area, and investment in infrastructure, this atmosphere has led to an increase in private investment. The increase in GDP reached its peak during this

period in the years 1997 and 1998, increasing by over US$ 450 million each year. This period showed clearly that growth could be attributed to political stability, adequate aid spending and high private sector investment.

The period 2000-2002 was characterized by violence and political instability ("Second Intifada Timeline", 2015). This was reflected strongly in the economy of the country. Growth dropped by 27.4% over the three years, with annual drops of 8.6%, 9.3%, and 12.5%, in 2000, 2001 and 2002 respectively.

Graph 3-2 Growth in GDP



Source: PCBS (2015)

During this period, the PA was unable to meet its obligations, with Israel freezing the transfer of customs and VAT money collected on behalf of the PA (World Bank, 2004).

The international community stepped in and aid to international organizations and the PA budget started to increase (World Bank, 2004). The behaviour of the economy during this period showed clearly how vulnerable the economy is to violence and political instability.

During this period aid to the budget was double that for the first period, but 50% of aid was spent on running expenses. The combined effect of political instability, low investment and low spending on development projects led to negative growth levels.

In 2003, President Yasser Arafat was forced to create the position of a prime minister, and appointed Mr Mahmud Abbas as the first Palestinian prime minister, this was a precondition from Israel, Europe and the US for aid to increase aid and help the Palestinian economic recovery (World Bank, 2004).

As we can see in graph 3.2, the economy started recovering, with growth of 14% in 2003, this growth continued from that date until 2011, before slowing down. 2006 was an exception, with GDP declining by 3.6%; this was a direct result of the Islamic Movement Hamas winning the election, which led to an Islamic leader being appointed as a prime minister for the first time, and the associated refusal of Israel to transfer around US$ 600 million, collected on behalf of the PA to the Palestinian side (Samir Abdullah & Kanafani, 2007)b The growth in GDP during the period 2003-2014 was over 102%, an annual average of 8.5%; the constant GDP jumped from US$ 3,441.1 in 2002 to US$ 7,463.4 in 2014. During this period growth fluctuated, but the trend was always positive and promising. In 2012, however, it started to slow down, dropping from 12.4% in 2011, to 6.3%, in 2012, 2.2% in 2013 and -0.2% in 2014.

Aid during this period reached an annual average of almost US$ 1 billion, but only 17% of this was spent on development. Most of the aid was spent on humanitarian aid and the running expenses of the PA.

The following sections will study the reasons behind this fluctuation in growth over the three periods, particularly examining whether growth was driven by the huge increase in aid and remittances (external inflows) that led to an increase in governmental spending, and household consumption, or by the increase in investment. The drop in growth in the final three years of the study points to the non-sustainable nature of the growth.

3.2.3 GDP per capita.

GDP per capita increased by 20.8% over the 21 years of the study, from US$ 1,438 in 1994 to US$ 1,737 in 2014. This an annual increase of barely 1% is low compared with neighbouring countries like Jordan, which had an annual increase of more than 2.73% during this period (US$1,830 in 1994 to US$ 2,878 in 2014) (World Bank, 2016).

The GDP per capita decreased during the first two years of the period of hope, due to the large increase in the population resulting from the return of PLO personnel to Palestine. It then increased in the three years that followed. The total increase for the period was 19.9%. This is almost equal to the total increase over the whole 21 years.

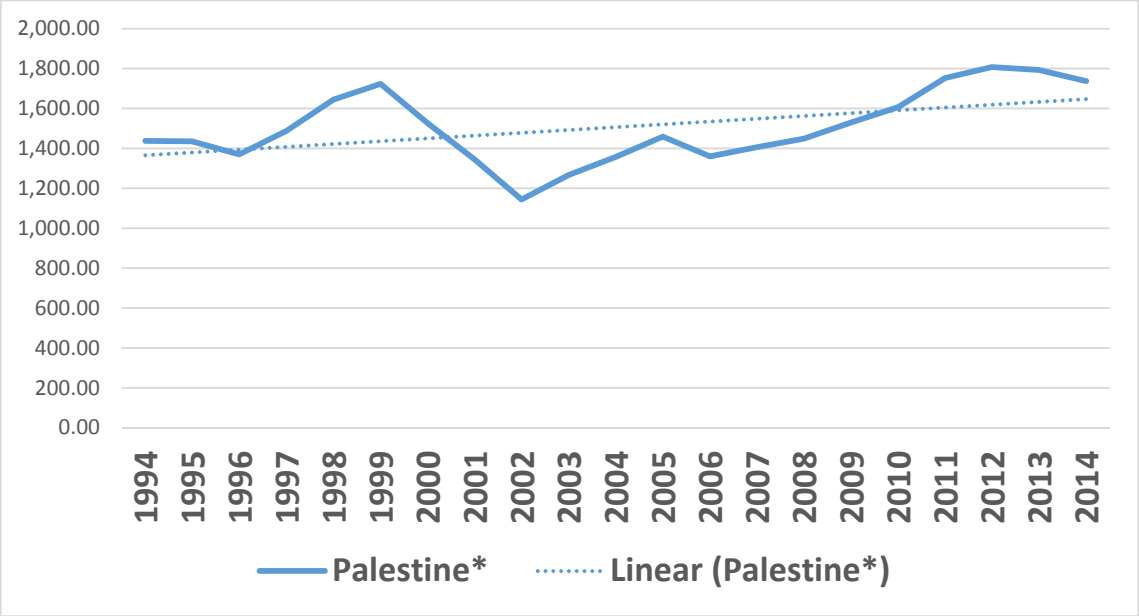
The second period, which was characterized by violence and political instability, saw a drop in GDP per capita of 33.7%, reaching a rock bottom value of US$ 1,143.7 in 2002. In this period the GDP per capita declined by more in three years than it had increased in the five years of hope.

The third period, which was characterized by the pumping of huge amounts of aid into the economy, saw an increase in GDP per capita of 51.9%, an annual increase of 4.3%. The trend in the period was positive, except for the years 2006, 2013 and 2014, which showed drops in GDP per capita of 6.8%, 0.8%, and 3.1% respectively. The drop in 2006 can be connected with Islamic Hamas winning the election, and the subsequent decline in aid. The drop in 2013 and 2014 could be associated with the organized drop in aid given to the PA budget.

This shows clearly the vulnerability of the Palestinian economy and its unpredictable relationship with aid. When aid was moderate during the first period, the growth in GDP per capita was high, but when aid increased in the second period, GDP per capita decreased sharply, while in the third period GDP per capita fluctuated. This fluctuation, however, was not in line with the different pattern of the level of aid. This means that there are other factors that were affecting the growth of the GDP per capita that are more important than aid. It also showed that during the second and part of the third period, there was a negative relationship between aid and growth.

This descriptive discussion has answered partially the question: has aid affected the economic growth positively? And the answer is no; but this needs more evident, such evident will be discussed in the empirical analysis of chapter 5.

Graph 3-3 GDP per capita:



Source :(PCBS, 2015)

3.2.4 GDP by expenditure.

The data obtained from the PCBS shows clearly that the Palestinian economy is a consumption led economy, with consumption averaging about 120% of GDP in the years 1994-2014.

The total consumption increased from US$3,619 million in 1994 to US$ 5,403.8 million in 1999, dropping to US$ 4,416.9 million in 2002, and increasing since then to reach US$ 8,819.6 million. These changes in values follow the pattern of the three periods discussed earlier. Relating these values to GDP shows that in 1994 consumption to GDP was 119.8%, and 118.2% in 2014, it was clear that consumption increased at a slower rate

than GDP during the period of hope, being 114% in 1999, but then increased at a higher rate during the period of violence, being 128.4% in 2002.

Total consumption was led by household consumption, averaging at 74.7% of the total consumption over the total period of 1994-2014; governmental expenditure followed at 21.4%, and the remaining 3.8% was the consumption of non-profit institutions serving households.

Government consumption as a percentage of total consumption increased from 14.6% in 1994 to 18.5% in 1999, 20.7% in 2002 and 23% in 2014. It also increased as a percentage of GDP, from 17.5% in 1994, to 21.1% in 1999, 26.6% in 2002, and

27.2% in 2014. This indicates a drop in household purchasing power, and an increase in government expenditure. The high rate of government expenditure was due to the huge employment in the government and security forces in 1994 and 1995, in order to create new jobs for the tens of thousands of people laid off by Israel after the peace treaty, and to employ the new Palestinian returnees entering the West Bank and Gaza as a result of the peace treaty.

The government expenditure was split between the West Bank and the Gaza Strip, with Gaza taking some 50% of the total government expenditure, according to the Palestinian Prime Minister, spending on Gaza is almost 50% of the total government expenditure (Sawa news, 2016); in both cases this is a larger share than its size of the economy and population. The high spending trend in Gaza has continued throughout the life of the PA. The Palestinian Prime Minister also stated in the same interview that the PA spends over US$ 100 million on Gaza, paying the salaries of 67 thousand employees, the cost of electricity supplied to Gaza by both Israel and Egypt, as well as the health costs of Gaza residents treated in Israel and the West Bank (Sawa news, 2016). Reasons for this high spending in Gaza is attributed to the closed nature of Gaza and the siege it has been under for the past 15 years.

In total, between 1994-1999, GDP increased by US$ 1,660.9 million, household consumption increased by US$ 1,277.6 million, investment by $832.5 million and government consumption by US$ 460.8 million. This shows that household consumption

was the dominant factor affecting growth, with investment coming next, and government expenditure coming third. Investment during this period was encouraged by the strong believe in peace, political stability and economic prosperity among investors from the Palestinian diaspora returning to the PA controlled areas (UNCTAD, 2002).

This optimism was reversed in the period of violence, with GDP, consumption and governmental expenditure decreasing, representing a real disaster to the Palestinian economy.

Total consumption reduced by more than 18% from 1999 to 2002, this was a total reduction of US$ 986.9 million, with household consumption leading this with a reduction of US$ 900 million, a drop of 21.4%. This reduction in household consumption reflected the deterioration of the economy and thus in living standards and purchasing power.

In the third period, 2003-2014, the trend reversed again, with GDP increasing by over US$ 4 billion over the period, and total consumption increasing by almost US$ 4.4 billion. Household consumption almost doubled from US$ 3.3 billion in 2002 to US$ 6.5 billion in 2014. Government expenditure also increased by 122%, from US$ 914.5 million in 2002 to US$ 2,030.7 million, while consumption of the Non-Profit Institutions Serving Households (NPISH) increased by more than US$ 133 million (almost doubling). This shows that consumption, including government expenditure, was the major driver in the growth of GDP.

This sharp increase in consumption was financed by external inflow, mainly aid, as it will be discussed in the chapter 4. When aid decreases, it was substitute by the increase in remittances of labour working in Israel.

The Gross Capital Formation (GCF), had a negative slope between 1994 and 2014, it was 33.8% of the GDP in 1994 dropping to be only 19% in 2014. From 1994-1999, the GFC increased to 39.5% of the GDP in 1999, then reduced to 25.5% in 2002. The decline in investment continued in the years to come, with GCF dropping to a mere 19% of GDP in 2014.

The values of GCF at the end of the first and second period followed the expected trend, but the decrease in investment in the third period was at odds with this trend. This shows clearly that, even during the period of state building of 2003-2014, very little attention was given to investment by the Palestinian government and donor community. It also shows that investment was not the driving force behind growth, rather external inflows were the driving factor in the economy, as described by a memorandum submitted to the UK parliament in 2003 (Khan, 2003).

Taking into consideration the extremely large increase in aid during the third period, it can be concluded that external inflows of money, mostly in aid, affected investment negatively and consumption positively, which clearly means that aid was used for consumption rather than investment, resulting in the creation of a fragile economy that is aid dependent (Khan, 2003). This finding will be discussed further in chapter 5.

The investment in the period 1994-1999 shows that the average Gross Capital Formation (GCF) in that period was US$ 1,260.3 million, some 33.4% of the average GDP for the period, reaching a peak of 39.5% of the annual GDP in 1999.

The GCF in these six years increased by $832.5 million, forming 50.1% of the increase in GDP. The maximum increase was between the year 1998 and 1999, when it increased by $512.6 million, and exceeding the increase in GDP itself by US$150 million.

It is also worth noting that the change in inventory over this period was an increase of US$ 103 million, with 63.9% of that in the West Bank, and 36.1 in Gaza, which is a sign of good health to the Palestinian economy.

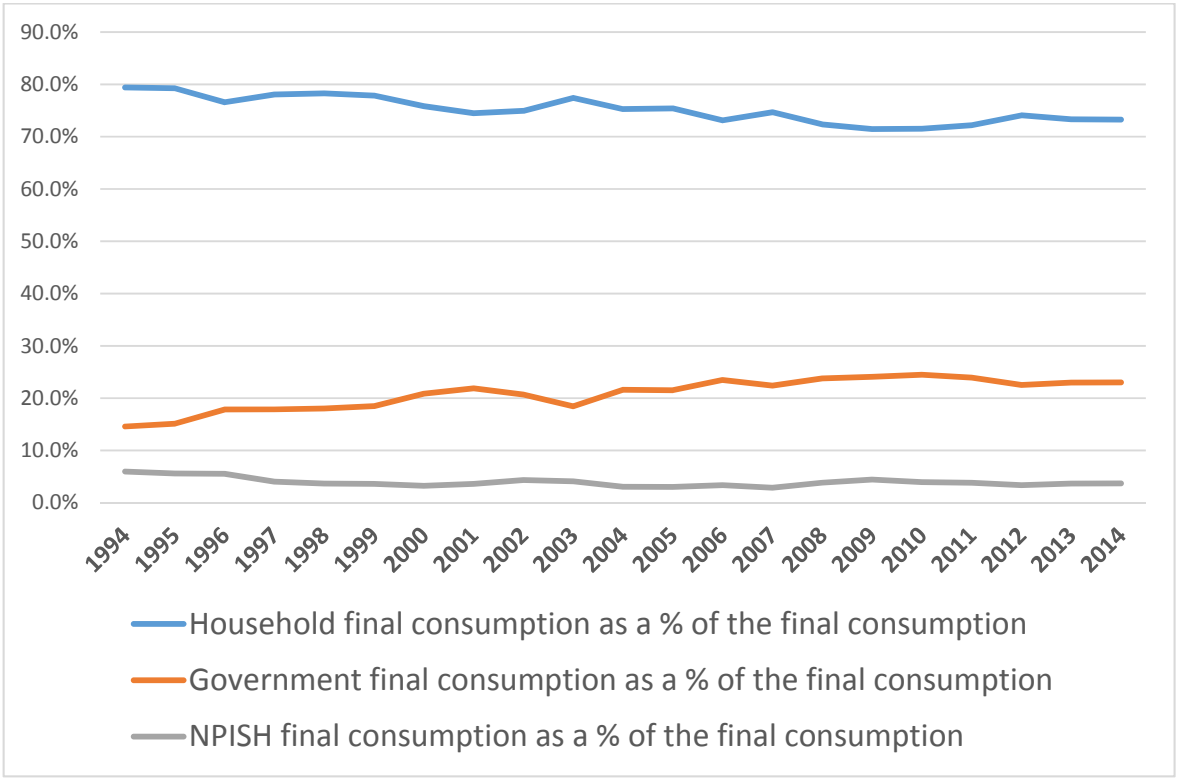
This increase in investment in the period of hope was accompanied by a $460.8 million increase in government spending, which represented 20.3% of the increase in GDP over this period. This resulted in household consumption increasing by $1,277.6 million, some 77% of the total increase in GDP. The average household consumption to GDP for the period was 92.3%.

The combined effect of investment, government spending and external outflows started to have an impact on household consumption in 1997, with household consumption

increasing by $518.6 million, $480.1 million, and $353.1 million in the years 1997-1999, respectively.

Using PCBS data, investigating investment between the years 1994-2014 further shows that construction was the main contributor to total investment, averaging 70.9% of the total investment. During the period of hope it counted for 73.8% of the total investment, dropping in the period of violence to be an average of only 63.4%, and then increasing again in the period of state building to average 71.1% of the total investment. The high investment in construction came as a response to the needs of returnees, as well as new legislation in the PA controlled areas ("Law Number1-1996. Acquisition of Apartments and shops", 2014), which permitted the registration of apartments, rather than land registration only. This made facilities given by banks to apartment buyers easier and smoother.

Graph 3-4 Consumption Components as a Percentage of Final consumption

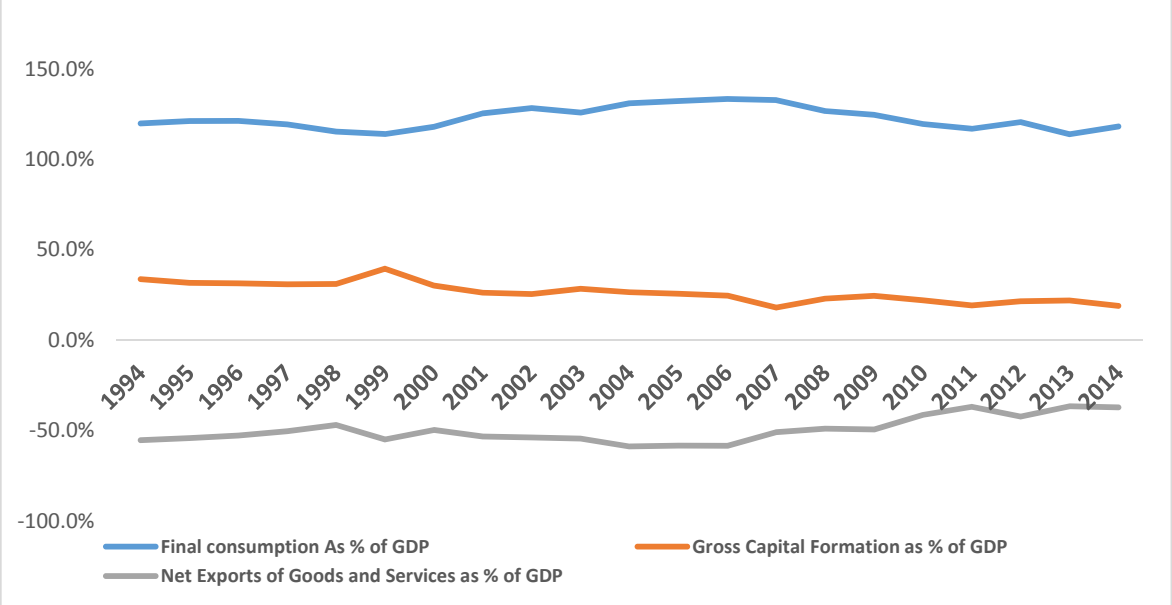


Source: (PCBS, 2015)

Throughout the life of the PA the trade balance has always been in deficit, increasing from US$ 1,700.4 million in 1994 to US$ 2,599.9 million in 1999, then reducing to US$ 1.847.5 in 2002, before increasing again to US$ 2,765 million in 2014, some 37% of the GDP, compared to an average of around 48% over the life span of the PA.

Graph. 3.5 shows that the deficit was almost constant in the period of hope, running at around 53% of the GDP, then decreasing due to the reduced purchasing power of the Palestinians, reaching 37% in 2014. The reduction in the deficit was due to the combined effect of the drop in imports and the increase in exports in terms of GDP: exports to GDP increased from 13.4% in 1994, to 19.6% in 2014, while imports to GDP reduced from 68.6% in 1994, to 56.6% in 2014. This combined effect resulted in a drop in the trade deficit from 55.2% of GDP in 1994 to 37% in 2014.

Graph 3-5 GDP by expenditure as a percentage of GDP



Source: (PCBS, 2015)

Gross exports increased by more than US$ 1.0 billion dollars over the 21 years, but the pattern of change followed that for the previous measures, increasing in the period of hope from 13.4% of the GDP in 1994, to 15.8% in 1999. Over the period of violence exports decreased from 15.8% in 1999 to 13.8% in 2002, increasing again to 19.6% in 2014.

In terms of absolute values, gross exports increased by US$ 338.9 million over the six year period of hope, increasing from US$ 412 million in 1994 to US$ 750.9 million in 1999, representing an increase of 82%. The gross export to GDP average was 15.5%.

In the second period of 2000-2002, gross exports decreased by US$ 270 million, with the exports to GDP dropping as well.

Gross exports increased by almost US$ 1 billion between the years 2003-2014, increasing by 5.8% in terms of GDP.

Imports increased sharply in terms of absolute value, increasing from US$ 2,110 million in 1994 to US$ 4,226 million in 2014, but decreased in terms of percentage to GDP, from 68.6% in 1994 to 56.6% in 2014.

In the period of hope, imports increased by 58.6% over the period, reaching US$ 3,351 million in 1999, some 67.7% of the GDP and a rise of US$ 1,240 million. The largest increase was between 1998 and 1999, when they rose by US$ 589.1 million, an increase of 21% per year. This huge increase in one year was to meet demand due to the increase in household consumption.

In the period of violence, imports followed the pattern of the period, decreasing by over US$ 1000 million, and some 30.5% of the imports of 1999, but they remained at almost the same percentage of GDP, reaching 67.7% in 2002 compared with 70.7% in 1999. This decrease was mainly due to a decrease in personal income that resulted in lower consumption.

In the period of state building, imports increased at a slower rate in terms of GDP, by 63.1%, although GDP increased by 117% over the same 12 year period. This resulted in a decrease in imports/GDP from 67.7% in 2002, to 56.6% in 2014.

To summarize, the above discussion shows that the Palestinian economy is a consumption led economy, with that consumption being financed by external inflows, This shows that the growth in the economy is not sustainable, and more attention should be given to investment, in both infrastructure and private sector.

3.2.5 GDP by activity.

GDP by activity will be discussed in three parts; the first will discuss the productive activities that are shown in agriculture, manufacturing, construction and services. The second part will discuss trade and other services, as shown in graph 3.6, while the third part will discuss the non-productive activities that are shown in graph 3.7.

Graph 3.6 shows clearly that productive activities have formed a decreasing proportion of GDP, with agriculture, manufacturing and services all decreasing and only construction slightly increasing. Their combined average contribution to GDP was 30% over the 21 years of study: in the period of hope, the average contribution was 35.9%, which dropped to 28% in the period of violence and 28.4% in the period of state building. In 1994 the value was 41.7%, which dropped to 26% in 2014. This shows clearly the declining trend of the productive sectors.

For the productive activities, services had the biggest contribution to GDP being 29.5%, 24.5%, 23.7%, and 20.8% over the years, 1994, 1999, 2002 and 2014, respectively. The above numbers also show how services have been contributing a steadily smaller proportion of GDP, regardless of the political stability.

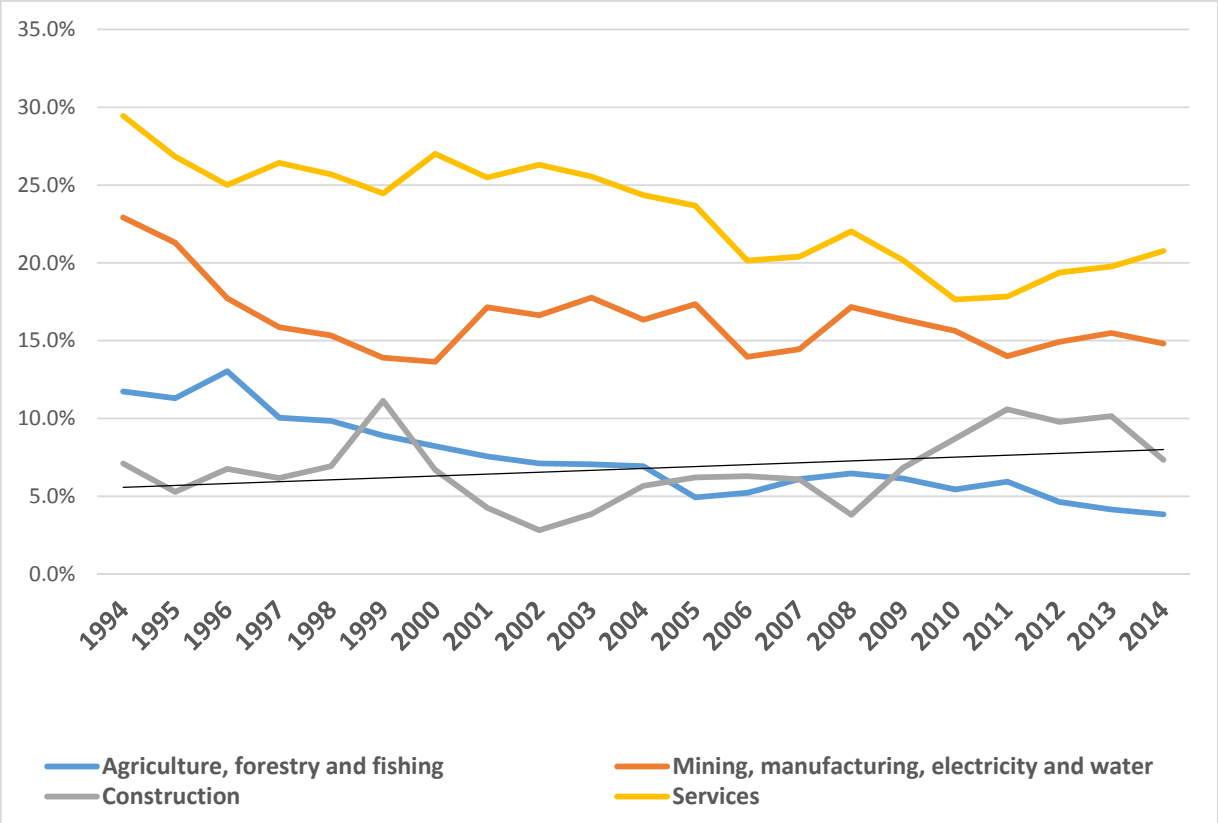
The second largest contribution to GDP among productive activities was mining, manufacturing and electricity. The contribution of these areas was 22.9%, 13.9%, 17.3%, and 14.8% over the years 1994, 1999, 2002 and 2014, respectively. These years represent the end of the beginning and the end of the periods suggested earlier. Graph 3.6 again clearly shows the declining trend of this activity, and indicates that industry needs to be the focus of more attention from the PA government, since the declining trend is not connected to political stability.

The third contributor among the productive activities was agriculture, which also had a declining trend. Its contribution to GDP was 11.7%, 8.9%, 4.9%, and 3.8%, for the years, 1994, 1999, 2002 and 2014, respectively. The contribution of agriculture has reduced particularly dramatically over the period, and in the last six years has become the smallest contributor to GDP among the main productive sectors. Although agriculture should be a

major activity in Palestine on account of its fertile soil and relatively cheap labour, the value in 2014 was just one third of that of 1994, with all three periods having a negative slope. The consumption of agricultural produce was in fact met by imports, mainly from Israel.

Israel has played a major role in the destruction of Palestinian agriculture, according to an UNCTAD report (UNCTAD, 2015). Restrictions imposed by Israel on fertilizer imports and use by Palestinian farmers, restrictions on the movement of agricultural products, and restrictions on farmers working on their lands in area C and around Israeli settlements, have resulted in agricultural productivity reducing by 20-33%, resulting in a low yield per dunum[7] compared with Israel and Jordan.

Graph 3-6 Productive activities as a percentage of GDP



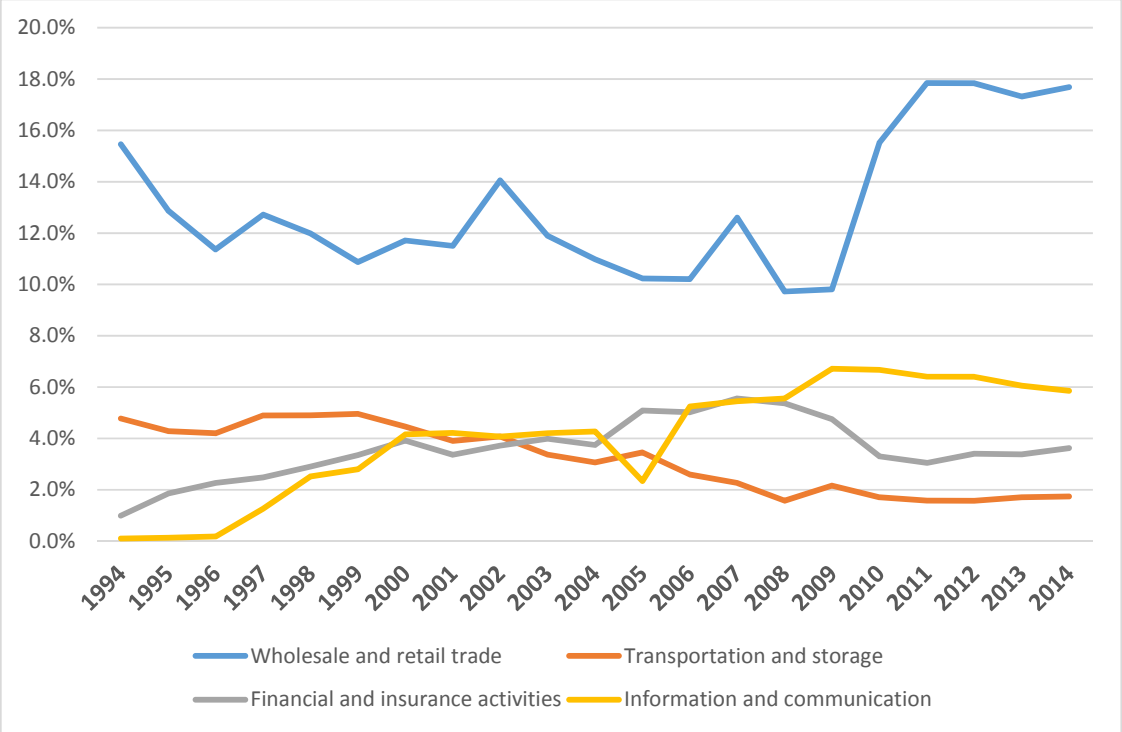
Source: (PCBS, 2015)

[7] One dunum equals 1,000 square metres

The fourth contributor among the productive activities was construction, with contributions to GDP of 7.1%, 11.1%, 6.2% and 7.3% in the years 1994, 1999, 2002 and 2014 respectively. This shows that, in the last few years, construction has replaced agriculture as the third biggest contributor to GDP

In the first period, construction increased its share of GDP by 4%. This was due to the high level of construction needed to accommodate the demand from returnees coming back with the PLO. Then the level of contribution slowed down to finish in 2014 with only a 0.2% increase from the level of 1994. It is worth noting here that construction was the only productive contributor that had a constant trend. All other sectors had a decreasing trend.

Graph 3-7 Trade, transportation, financial and communication contribution to GDP



Source: (PCBS, 2015)

The second part under discussion is, trade, transportation, financial, insurance and information and communication. This had an average contribution to GDP of 23% over

the 21 years under study, with the contribution remaining almost constant until 2005, and then increasing. In the period of hope its average value was 20.7%, reaching a maximum of 22% in 1999; in the period of violence, its average value was 24.4%, reaching a maximum value of 25.9% in 2002; whereas in the period of state building these sectors increased their contribution to GDP from 23.5% in 2003 to 28.9% in 2014, giving an average value over the period of 25.3%, which is a slight increase.

The largest contributor in these sectors was trade, which averaged 13.1% over the 21 years of the study. It had a decreasing trend until 2009, before increasing after that. In 1994, its contribution was 15.5%, decreasing to its minimum value of 9.7% in 2008, before increasing to a maximum value of 17.7% in 2014. The contribution made by transportation decreased throughout the study period: from 4.8% in 1994 to 4.1% in 2002, and an average of 1.7% in the last five years of the study. The contribution to GDP made by finance and insurance was small but increasing; from 1% in 1994 to 3.7% in 2002 and 3.6% in 2014, with an average contribution over the 21 year period of 3.6%. The last sector in this category is information technology and communication. This sector had an average contribution of 4% over the 21 years of the study, with over 70% of that being made by communication. This sector had an increasing trend, from 0.1% in 1994 to 4.1% in 2002 and 5.9% in 2014.

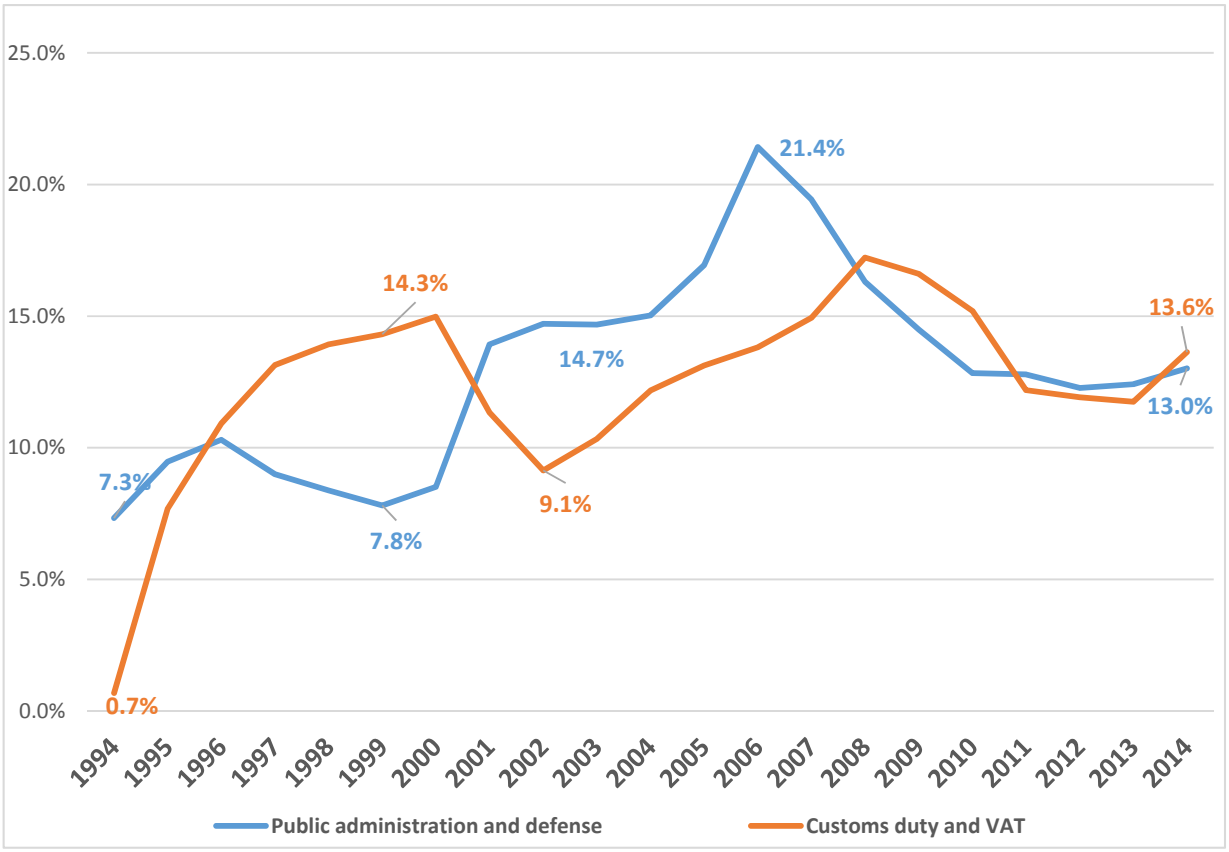
There are two non-productive activities contributing to the GDP, customs duty and VAT, and public administration and defence. These are shown in graph 3.8. Customs duty and VAT averaged a 12% contribution to GDP over the 21 years of the study. Tax collection in general, and customs duty and VAT in particular, are considered to be the major internal resources of the PA. With Israel preventing drilling for oil and gas, through its control over area C, and offshore of Gaza, the PA has no income from natural resources. This gives tax collection and customs duty a high degree of importance.

The PA assumed control of Gaza in May 1994, and of the West Bank in 1995, with no experience in finance and tax collection. This resulted in an initially very low level of contribution to GDP from customs duty and VAT, just 0.7% in 1994. This increased gradually, however, to hit its highest value, of 14.3%, in 1999. This value dropped in the period of violence reaching 9.1% of GDP in 2002, then increased again in 2014 reaching

a value of 13% of GDP. According to an UNCTAD report (UNCTAD, 2013), a major reason for it not reaching higher value was the inability of the government to control its borders, which resulted in the smuggling of goods from Israel to the PA controlled areas through area C, with the PA unable to collect its VAT from Israel.

Public administration and defence, is the other component of the non-productive activities, and these showed an increasing trend over the years of study, reaching a peak of 21.4% of GDP in 2006, before declining to 13% in 2014, with an average of 12.9% over the 21 years of this study.

Graph 3-8 Public administration and customs duty and VAT as a percentage of GDP



Source: (PCBS, 2015)

In the period of hope, public administration and defence was consistently between 7 and 8% of GDP, only increasing by 0.5% between the years 1994-1999. In the period of violence the contribution of public administration and defence to GDP increased to 14.7% in 2002, this was due to the drop in overall GDP during this period while spending on administration and defence increasing slightly. In the period of state building, the increasing trend continued until 2006 reaching 21.4% of the GDP, this was due to the sharp increase in the absolute value of public spending. Its value increased from US$ 506.1 in 2002 to US$ 987.5 in 2006. In 2007, Gaza was taken over by the Islamic movement Hamas, and, although spending continued on Gaza, it did so at a slower rate. In addition the international donor community put pressure on the PA to reduce spending. These two factors combined to reverse the trend of public administration and defence spending (World Bank, 2009). Its value decreased to US$ 785.8 million in 2010 before increasing again to US$ 971.4 million in 2014. This level was similar to that of 2006 in terms of absolute value, but smaller with respect to GDP. These values, when related to GDP, show the efforts made by the PA to reduce spending. The share of GDP held by public administration and defence dropped from 21.4% in 2006, to 12.8% in 2010 and 13% in 2014.

3.2.6 Unemployment Rate and Labour Force Participation Rate (LFPR).

The effects of the weak economy were reflected in the labour market, with a low LFPR and high unemployment rate, as well as increased poverty indictors.

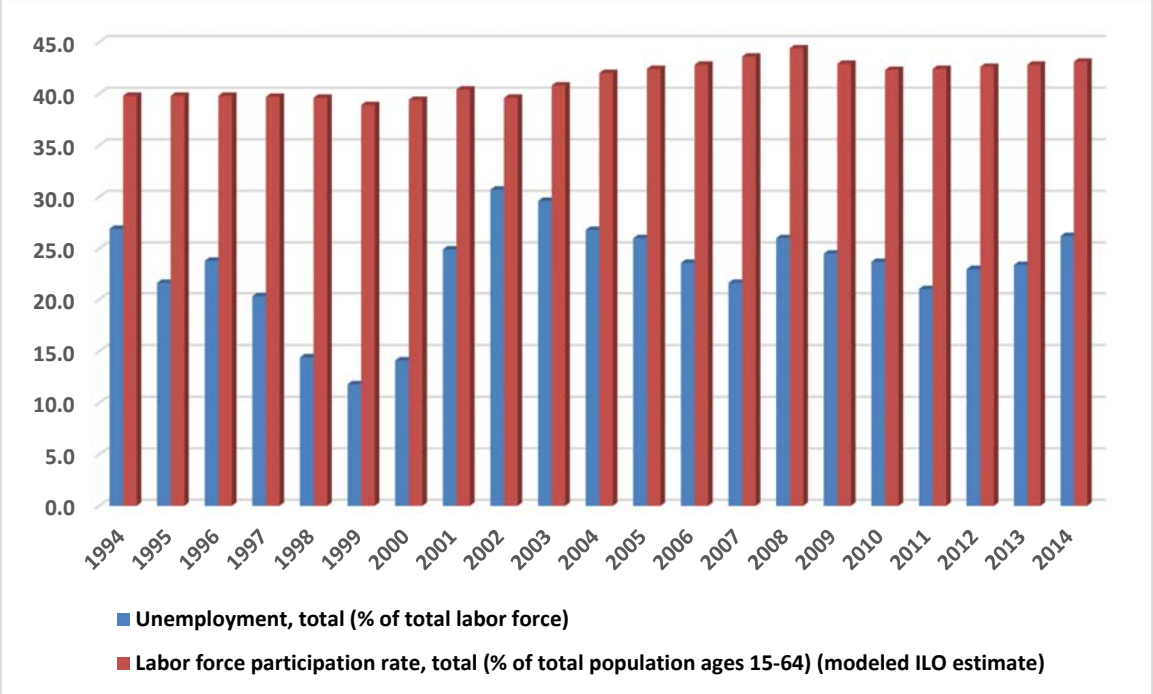
Unemployment and LFPR are considered to be major indicators, revealing the impact of economic policy on social issues. When the unemployment rate increases and/or the LFPR decreases this means that the economy loses the contribution of these unemployed people. This gives these two indicators a great deal of importance.

The unemployment rate followed the inverse pattern of the GDP and its components: it decreased in the period of hope, increased in the period of violence, then decreased again in the period of state building, to fluctuate between 23% and 26%. These figures could be compared with the 1-2% unemployment rate in the 1980s and early 1990s.

The unemployment rate decreased from 26.9% in 1994 to a record low of 11.8% in 1999. This was due to the dual factors of private sector investment and government employment in the security forces and public sector. It then increased again in the period of violence, reaching a peak of 30.7% in 2002. In the period of state building, the rate started to decrease again and fluctuated between 23% and 26%. This compares with an average unemployment rate of 6% in Israel and 12% in Jordan (World Bank, 2017)b.

The LFPR ranged between 39.4% and 44.4%, over the 21 years. In the period of hope it ranged between 39.8% in 1994, dropping to 38.9% in 1999. This slight reduction was due to the increase in the number of people of working age, due to the return of a high number of people to the PA controlled areas as a result of the Oslo Accord. In the period of violence, LFPR reached 39.6% in 2002, but then started to increase, reaching its maximum of 44.4% in 2008, and 43.1% in 2014.

Graph 3-9 Percentages of unemployment and LFPR



Source: ILO, (2015)

The LFPR does not reflect the full story, however, with participation among women and young people being lower than the national average. The average total of LFPR over the 21 years of the study was 41.1%, with males having a high participation rate of 68.7% and females having a participation rate of only 13.4%. Youths aged between 15-24 years, also had a low participation rate, at an average of 26.1% compared with the overall average of 41.1%. Young females had a participation rate of only 7.4%, and young males had a participation rate of 44.1%. This clearly shows the severe problems faced by young people and women in finding jobs and participating in the labour market.

3.3 West Bank and Gaza, a comparative analysis

The West Bank and the Gaza Strip are the two areas of Palestine that were not occupied by Israel in 1948. In the period 1948-1967, the West Bank was annexed and administered by Jordan, while Gaza was militarily administered by Egypt. In 1967, both the West Bank and Gaza were occupied by Israel. In 1993, the Oslo Accord stated that the future of the two areas would be decided through negotiations based on UN resolutions 242 and 338, and that they were to be administered by the Palestinian Authority *Infoplease*, 2013).

The West Bank and Gaza are described by some countries as the occupied Palestinian territories, and by some others are described as disputed areas. They are described by the Oslo Accord as the Palestinian Authority controlled areas. Those two areas are described by the Palestinians as the State of Palestine. The Oslo Agreement of 1993, discussed the solution for those two parts based on UN resolutions 242 of 1967, and 338 of 1973, both of which demanded the withdrawal of Israel from the territories they occupied in 1967.

The two areas were administered by the PA from 1994-2006. In 2007 Gaza was taken over by the Islamic movement Hamas, and since then Gaza has been administered politically, economically and militarily by Hamas, although the PA continued to pay salaries to its employees, and continued spending on health, education, electricity, social affairs and water supplies. This spending was estimated by the Palestinian Prime Minister to be 50% of the overall spending of the PA Samir Abdullah, S., & Kanafani, N. (2007)c.

Two indicators can justify the comparative study of the two areas. In 2014, the GDP per capita of Gaza was US$ 971 compared to US$ 2,269 for the West Bank. Unemployment

for the same period was 43.9% in Gaza compared to 17.3% in the West Bank. This shows that the economies of the West Bank and Gaza Strip were taking different paths, due to differences in the political, security and economic situations that resulted from the separation of the two areas.

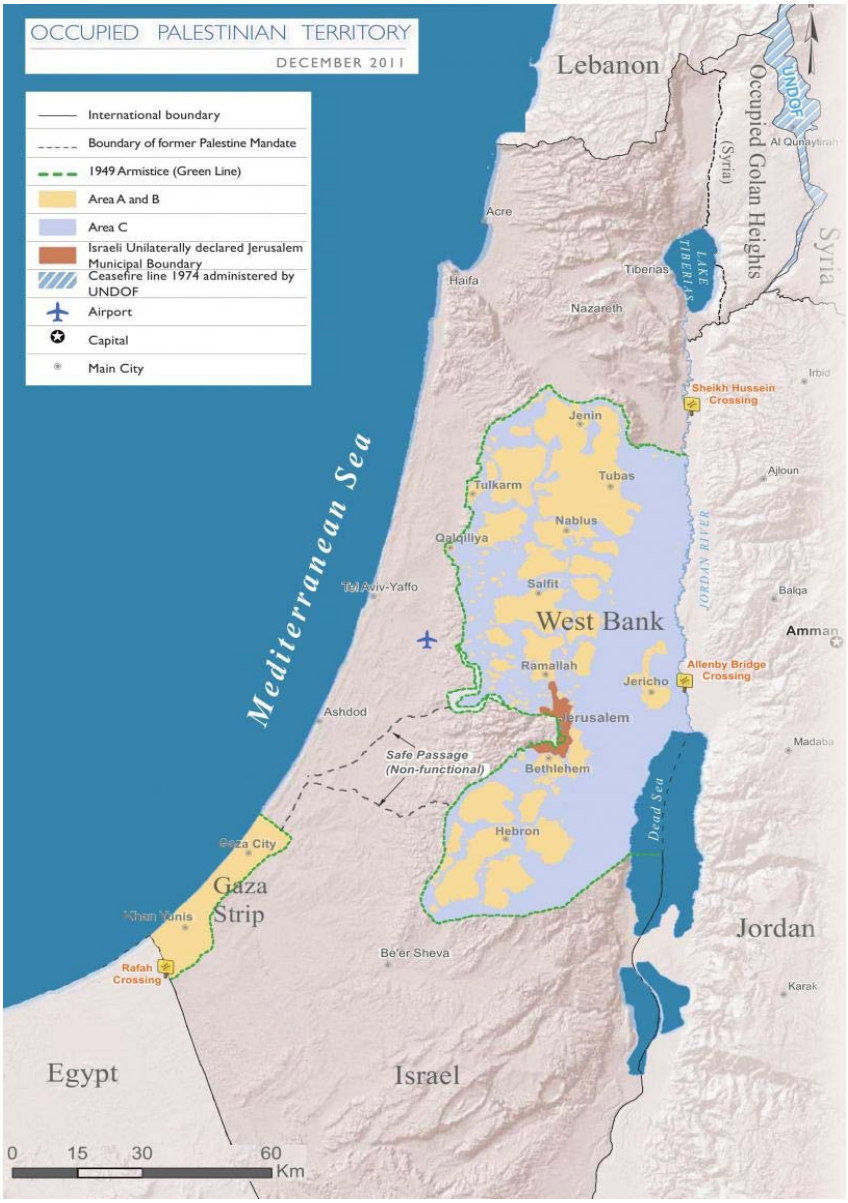
3.3.1 Demography.

The total size of historic Palestine (Israel, Gaza and the West Bank) is 26,990 square kilometres, the West Bank and Gaza comprises 22% of this area, some 6,020 square kilometres. The area of the West Bank is 5,655 square kilometres, and Gaza only 365 square kilometres. The estimated population of the West Bank according to the Palestinian Central Bureau of Statistics, was almost 2.8 million in 2014, compared to 1.76 million for the Gaza Strip. This makes Gaza the most densely populated area in the world with 4,822 inhabitants per square kilometre, while the West Bank has 493 inhabitant per square kilometre, and Israel 324 inhabitants per square kilometre. Gaza contained 38.6% of the overall population of the PA controlled areas in 2014, but just 6% of the land area (PCBS. 2015).

Gaza is a small strip on the Mediterranean Sea with a length of 40 km, and a width that varies between 6 and 14 km. It is bordered by Egypt from the south, Israel from the north and east, and the Mediterranean Sea from the West. Its costal area is 41 km in length. Gaza has a small sea port for fishing, but no sea port for passengers or goods. Its commercial border crossing with Egypt has been closed for the past 15 years, making Israel the only commercial border crossing, ("The CIA Fact Book", 2015)

The West Bank is mostly a mountain area, with a small part located in the Jordan valley. It is bordered by Israel from the north, west and south, while it is boarded by Jordan from the east. An Israeli controlled crossing with Jordan is the only passenger connection between the West Bank and the rest of the world. (CIA, 2017)

*Figure 3-1*The West Bank and Gaza Strip



For commercial crossings, the Palestinians use Israeli sea ports for exports and imports, but have to go through a back-to-back operation, where all trucks from and to Israeli ports have to offload at the border crossing in order to load goods onto Israeli trucks.

The West Bank and Gaza are not geographically connected, and any movement between the two areas has to go through Israel using Israeli trucks.

3.3.2 General economy.

Gaza's contribution to the GDP was always smaller than its population ratio to the total population of the PA controlled areas. Gaza has had around 35-38% of the total population of the PA controlled areas population for the period of 1994-2014, and averaged around a 34% contribution to GDP before Hamas took over Gaza in 2007. This contribution dropped to an average of 25% between 2007 and 2014. The reduction in Gaza's contribution after 2007 was sharp and continuous: 34.6%, 37.4%, 28.2%, 24%, and 22.9% in 1994, 2006, 2007, 2008, 2009, and 2014 respectively, demonstrating that the economy of Gaza was deteriorating slowly while the economy of the West Bank was growing slowly.

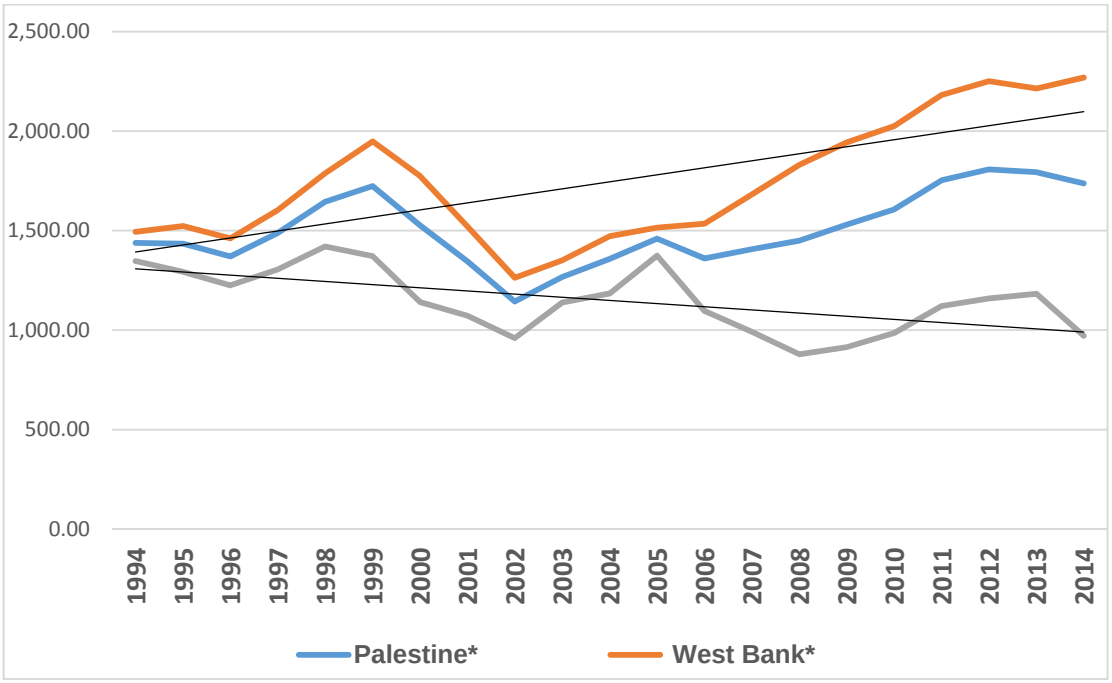
The West Bank's contribution to the total GDP was 65.4% in 1994, which increased to 77.1% in 2014.

This fact shows the importance of studying the economic indicators for both the West Bank and Gaza separately, in order to understand the Palestinian economy in a real sense. The overall figures are of great importance to the PA to plan the overall economy of the country, but with Gaza being controlled by Hamas, put under siege by Israel, and with the PA having little control over its political system and economy, it becomes of great importance to study the economy of each part separately, and hence consider different economic plans for the West Bank and Gaza.

3.3.3 GDP per capita.

The ratio of the GDP per capita of Gaza to the GDP per capita of the West Bank was 90.1% in 1994, and kept fluctuating around 80-85% during the period of hope, before dropping to around 70% in the period of violence. In the years 2003-2005 the share of Gaza from the total GDP per capita increased again, going back to over 90%. Then, after Hamas winning the election in 2006, and later taking control of Gaza in 2007, the GDP of Gaza started to drop dramatically, and the GDP of the West Bank moved in the other direction. The GDP per capita of Gaza dropped to the low level of US$ 971.1 in 2014, while the GDP of the West Bank increased to US$ 2,269 in 2014.

Graph 3-10 GDP per Capita: Gaza, the West Bank and the PA controlled areas



Source: (PCBS, 2015).

Comparing this to the GDP per capita of neighbouring countries, the GDP per capita of the West Bank is still considered to be smaller than those of neighbouring countries like Lebanon and Jordan, with Lebanon having a GDP per capita of US$ 7,178 and Jordan US$ 2,878 in 2014 (World Bank ,2015). This shows that the West Bank is still considered to be a low middle income area, and Gaza a low income area.

Graph 3.11 shows the increasing difference between the GDP of the West Bank and the GDP of the Gaza Strip, and shows the different paths the economies of the two areas are taking. The reasons for this are a combination of the stricter Israeli measures against Gaza, as well as the absence of sensible economic policies in Gaza, with the government of Hamas only managing the day-to-day operations. Hamas' political objectives in Gaza are to protect its power and military presence with high expenditure on the military, and much less attention is therefore paid to investment. Gaza's buildings and infrastructure have been extensively damaged by Israeli military attacks, and the tight Israeli blockade

on Gaza has prevented the import of machinery and raw materials, including building materials.

The economic conditions in Gaza would have been even worse if it were not for the high spending of the PA on Gaza. The PA spends between 40-50% (depending on the source) of its budget on services and salaries in Gaza. This is estimated to be at least US$ 1 billion annually.

3.3.4 Growth.

Growth in the West Bank was higher than in Gaza, and the overall growth in Palestine, except during the period of violence, when Gaza had a higher growth rate than the West Bank. During that period, the West Bank witnessed the most violent clashes with the Israeli army, while Gaza was relatively quiet, hence growth in Gaza was higher than that of the West Bank. The GDP in the West Bank increased from US$ 1,981 million in 1994 to US$ 5.754 million in 2014, an increase of 190%; while the GDP of Gaza increased from US$ 1,099.5 in 1994 to US$ 1,709.1 million in 2014, an increase of 55.4%. This shows that the GDP of the West Bank increased about four times faster than that of Gaza. On average, the GDP of the West Bank increased by an annual rate of 9%, while Gaza had an annual growth rate of 2.6%.

The growth in the West Bank over the six years of the period of hope was 65.2%, compared with a growth of 33.7% in the Gaza Strip and a growth of 53.9% in the PA controlled areas as a whole. This difference in growth is despite the PA's concentration on Gaza in terms of employment and spending. Before 1994, Gaza's economy was dependent on exporting labour, agriculture and other intensive labour products to Israel, the West Bank and Europe, but this stopped after 1994. It was also dependent on the remittances of workers working in Israel, and these also stopped after 1994. According to a World Bank statement on 10th May 1996, Israel closed the borders with Gaza in 1995, preventing exports from Gaza and imports of building material. It also stated that Israel reduced the number of employees working in Israel from 116,000 in 1992 to 53,000 in 1994 and 29,500 in 1995. During this period the PA invested heavily in the infrastructure

in Gaza, building an airport, maintaining the roads and electricity systems, and sharing in the construction of an electricity production plant. Private investment was low except in the building sector, but overall investment in Gaza was low during this period (Abu AlQomsan, 2005).

In the period of violence, between 2000 and 2002, growth was negative in both of the West Bank and Gaza Strip, although the drop in growth was sharper in the West Bank than in the Gaza Strip (-29.5% in the West Bank compared with -22.8% in Gaza. This drop in both areas was a direct result of the drop in investment and government spending.

The third period, from 2003-2014, is here sub-divided into two periods, 2003-2006 and 2007-2014. The reason for this is to take account of the consequences of the Hamas takeover of the Gaza Strip and the resulting Israeli blockade.

The growth in the period 2003-2006 was very similar for both areas. It was 35.7% for the West Bank, compared to 30.3% in the Gaza Strip. This picture changed completely after 2006, when growth in the West Bank was 91.6% between 2006-2014, compared to -4.7% in the Gaza Strip over the same period. The World Bank in most of its quarterly reports attributed that to the very strict blockade imposed on the Gaza Strip by Israel as a result of the Hamas takeover of the Gaza Strip, as well as the non-existence of sensible economic policies in Gaza.

3.3.5 GDP by Expenditure.

Gaza's average share of the final consumption over the 21 years of the study was 31%, lower than its share in the population. Furthermore, its share of the final consumption declined with time, from 37.5% in 1994 to 33.4%, 34.5%, 34%, and 28% in the years 1999, 2002, 2006 and 2014, respectively. The most notable drop was between 2006 and 2014 – the period when the Islamic movement Hamas ruled Gaza.

Gaza's average final consumption as a percentage of its GDP was 129.1%, compared to 119.4% in the West Bank, so Gaza economy was affected more by consumption than that of the West Bank. Government consumption in terms of GDP was more in Gaza than in

the West Bank (24.3% compared to 20.1%), while household consumption in Gaza as a percentage of GDP was lower than in the West Bank (69.7% compared to 77%). This shows that Gaza is more dependent on government consumption than the West Bank, and that this economic dependence on government consumption has grown with time. Government consumption in Gaza to Gaza's GDP was 20.8% in 1994 but 28.3% in 1999, 30.2% in 2002, 33% in 2004 and 45.6% in 2014. The West Bank's dependence on government consumption was lower, but also growing with time: 15% relative to West Bank GDP in 1994, 17.8% in 1999, 24.8% in 2002, 25.9% in 2004 and 36% in 2006, before gradually dropping to 21.6% in 2014. This shows the West Bank's dependency on government consumption, but also that this is less than that of Gaza. It also shows, however, that government has sought to reduce spending in the West Bank after 2006.

Gaza's share of the total PA government consumption has only reduced slightly over the years, however: from 42.4% in 1994 to 41.6% in 1999 and 38.4% in 2014. This is due to the fact that the PA government in the West Bank has kept spending on services in Gaza, such as education, health, electricity and water supplies, even after Hamas took control of the strip.

Government consumption in Gaza has increased by 11.5% annually, from US$ 228.5 million in 1994 to US$ 779.9 million in 2014. This compares to an increase in the West Bank from US$ 310.3 million to US$ 1,309.6 million. A large part of the government consumption in Gaza, however, was financed by transfers from the West Bank government to Gaza, which shows clearly that Gaza depends to a large extent on the West Bank transfers and governmental spending.

Household consumption to GDP was similar in both the West Bank and Gaza, with an average value of 91.9% over the 21 years in the West Bank compared to 89.9% in Gaza. In the West Bank it was 95.5% in 1994, and dropped gradually to 86.6% in 2014, with the exception of the years of instability and their aftermath, when this ratio increased to 100-106% of the GDP. In Gaza, this ratio fluctuated over the 95% mark, except for 2006 and 2007, when Hamas won the general election and then took over Gaza, when its value increased to 113% and 110% respectively, before dropping gradually again to 88.5% in 2014.

Household consumption in Gaza increased by an annual average of 2.2%, while its population increased by an annual average of 2.4%. This means that the growth in household consumption was less than the population growth

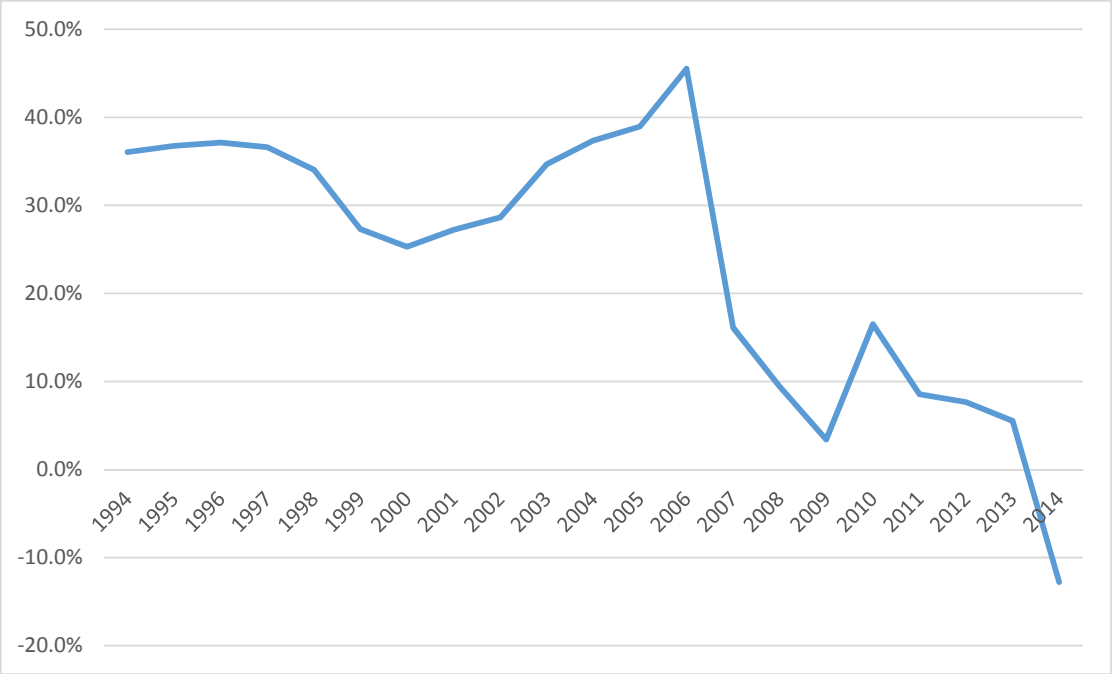
The share of Gaza in the gross capital formation, dropped from 36% in 1994 to -12.8% in 2014. Its share was dropping gradually over time, dropping to 27.3% in 1999 and to 5.5% in 2013, before becoming negative in 2014, due to large negative values in inventories.

Graph 3.11 shows the reduction in the GCF of Gaza in relation to that of the PA controlled areas as a whole, revealing the sharp negative trend, except in the period 2005-2006. This sharp drop shows how Gaza was losing its productivity, which affects Gaza's share of the export sector.

Gaza's share of Gross Fixed Capital Formation (GFCF) to the total PA value was also reducing, from 34.4% in 1994 to 24.3% in 1999, and to 26.8% in 2002. It increased in 2006 to 45%, before dropping gradually and sharply to 9.3% in 2014. This was attributed by the World Bank (2009) to the optimism in Gaza after the appointment of a prime minister from Gaza, but according to the same source, this optimism was buried under the rebels. This sharp drop in investment was again attributed to the huge destruction caused by Israeli military action against Gaza, especially in 2008, 2012 and 2014. The average GFCF share of the Gaza GDP over the 21 years was 21.9% compared to 26.9% for the West Bank. Most of this share was buildings, with 79.4% of the GFCF of Gaza being buildings compared to 68% for the West Bank. This explains the large drop of GFCF of Gaza after the wars, since large numbers of industrial buildings had been destroyed.

Gaza's average GFCF as a percentage of its GDP over the 21 years was 21.9% compared to 26.9% in the West Bank. It was 31.3% in 1994, where it started to drop gradually, it dropped to 28.5% in 1999, and 20% in 2002, before increasing to 33% in 2006, and since then started dropping sharply to reach 9% in 2014. Again, these numbers represent the large destruction caused by war, and the blockade preventing the reconstruction of what had been destroyed. The GFCF of the West Bank over the period was fluctuating between 33.1% in 1994 and 25.9% in 2014.

Graph 3-11 Gaza Gross Capital formation as a percentage of the PA GCF



Source: (PCBS, 2015)

Gaza's share of exports was always very low, due to the restrictions imposed by Israel on any goods leaving Gaza, which made exports from Gaza almost impossible. Gaza's share of exports was 9.7%, 10.8%, 15.6%, 10% and 6% in the years of 1994, 1999, 2002, 2006 and 2014 respectively. The very low value in 2014 is attributed to the low investment in Gaza, with large numbers of factories, machineries and agricultural establishments having been destroyed as a result of the Israeli bombardment.

The share of GDP held by exports in Gaza has always been low; averaging 5.1% over the 21 years of the study. This value fluctuated around the 5% mark, reaching a maximum of 6.8% in 2004 and a minimum of only 1.2% in 2010. Comparing this with the West Bank, the contribution of exports to the West Bank's GDP over the 21 years was on average 21.5%, five time higher than that of Gaza.

Gaza's imports in relation to its GDP over the 21 years was 49% on average, compared to 69% in the West Bank. This shows the larger purchasing power of the West Bank but,

more importantly, it also shows that Gaza is more self-sufficient when it comes to basic commodities, especially food. Imports into the West Bank, as a percentage of GDP, were 71.3% in 1994 and fluctuated around that figure for the time span of the study. This is a very interesting result, which means more investment should be put into locally produced products, especially agricultural produce, and other basic food industries.

When these factors are analysed according to the three periods it is evident that, during the first period of hope, government consumption was an important factor in the economy of the Gaza Strip, since at that time Gaza's household consumption was mainly financed by government expenditure and private sector investment, with government expenditure running at 26.1% of the average Gaza GDP for the period, and investment running at 31.5% of the average Gaza GDP for the period. The growth in government expenditure in Gaza was 82% during the period, with household consumption only growing by 30.5%, and investment growing by over a 100%, 83% of which was a growth in construction investment. Despite this, Gaza economy was running behind hopes, with Israeli closures affecting the economy negatively, as per the World Bank statement of May, 1996.

After 2006, Gaza's contribution to the overall GDP of the PA controlled areas dropped to an average of 25.3%, with the final consumption, household consumption, GCF, and net export, dropping to 27.6%, 24.9%, -12.8%, and 22.7% respectively. The most notable drop among these sectors was in investment, which, for the first time ever, was a negative value, which shows clearly that investment in the Gaza Strip was going from bad to worse.

Government consumption in Gaza was either around or above the population ratio of Gaza-West Bank, and always above Gaza's contribution to the GDP. The average government consumption in Gaza was 43.3%, 42% and 33% for the period of hope, period of violence, and period of state building, respectively.

The above discussion shows that, although Gaza was always running at lower rates than the West Bank, the main setback for Gaza's economy started after 2007 when Hamas took over Gaza resulting in an even stricter blockade.

3.3.6 GDP by activity.

Gaza's share of the GDP according to its economic activities is made up differently from that of the West Bank, with only two activities comprising 50.1% of the GDP: public administration and defence had an average contribution of 20.8%, while services had a contribution of 29.3%. Compared to the West Bank, where these figures were 9.9% and 19.6%, respectively, it is evident different the two economies are.

In the agricultural sector, Gaza's share of the total Palestinian agricultural production over the 21 years of the study averaged to be of 34.4%: very close to its share of population, and over this period the share of agriculture in the GDP of Gaza dropped at a slightly lower rate than that of the West Bank. Gaza size is only 365 Km^2, but, the Gaza farmers utilized their cultivated land efficiently, it is also worth noting that the agriculture values of Gaza includes fishing, which the West Bank does not have access to.

In the manufacturing sector, Gaza's share of the Palestinian industrial output over the 21 years was 23.2%, with a declining trend. It was 32.9% in 1994 and dropped to 13.5% in 2014. This was due to the destruction of most the industrial establishments in Gaza in the wars and Israeli aerial bombardment of Gaza.

Gaza's share in services increased over the years of study until 2006, before dropping after Hamas assumed control over Gaza. Gaza's share averaged at 38.3%, and was 37.6%, 40.9%, 45.9%, 42.7% and 31% in the years 1994, 1999, 2002, 2006 and 2014, respectively. It is very clear from those values that Gaza's services sector was performing better than that in the West Bank until 2006, when it started to decline.

Gaza's share of public administration and defence was always above its population ratio. It was 46.2% in 1994, and in the years that followed these areas continued to enjoy high spending: 44%, 40%, 41% and 56.1% in the years 1999, 2002, 2006 and 2014, respectively. Its average over the 21 years of the study was 46.7%. This was the highest average of any economic activity. This activity is mainly financed by West Bank transfers. It is interesting to compare this activity contribution with customs duty and VAT, since the first represents spending while the second represents collection.

For customs duties and VAT, Gaza share was always smaller than its population ratio with the West Bank, and also smaller than its share in the Palestinian GDP. Customs duty and VAT averaged to be 17% of the total collection over the 21 years, ranging from 26% in 1994 to 5.5% in 2014. Although the drop in Gaza's share of Customs duty and VAT was continuous, it was sharper after 2006 when Hamas took control of Gaza.

It is interesting to note here, that while spending on Gaza was almost 50% of the total spending, collection from Gaza was in the range of only 6%.

The above discussion shows that the contribution of Gaza's economic activities to the value of all the activities of the PA controlled areas was running at around 30-40%, which is around its population ratio. This continued until 2007, the year when Hamas took over Gaza, and the blockade of Gaza intensified.

From this point, public administration and defence became the main contributor to GDP, increasing from 9.5% of Gaza's GDP in 1994 to 27.4% in 2006 and 31.9% in 2014. This has increased Gaza share of the total public administration and defence spending from 42.1% in 1994 to 56.1% in 2014. The public administration and defence spending in the West Bank relative to its GDP was 6.1%, 14%, and 7.4% in 1994, 2006 and 2014 respectively.

Looking at other the contribution of other activities to GDP in Gaza, services maintained a high level of around 30%, while agriculture and manufacturing dropped sharply over the years, from 10% in 1994 to 5.2% in 2014 for agriculture, and from 21.1% to 8.7% for manufacturing. In the West Bank, the contribution of services to dropped from 28.6% in 1994 to 18.6% in 2014. Both agriculture's and industry's contribution to the GDP of the West Bank also dropped, with the contribution of agriculture reducing from 12.7% in 1994 to 3.4% in 2014, and manufacturing from 23.9% in 1994 to 16.6% in 2014.

These numbers show the continued deterioration of Gaza's economy, and its dependence on non-productive activities such as public administration and defence, which is financed by the PA budget in Ramallah. Gaza's contribution to customs and VAT (i.e. income), meanwhile, dropped from 28.9% in 1994 and 22.5% in 2006 to only 5.5% in 2014.

3.3.7 Unemployment rate.

Data for the unemployment rate, published by the Palestinian Central Bureau of Statistics (PCBS, 2015) is only available for the years 2000-2014. The PCBS published data is for both the West Bank and Gaza, separated and combined, to give unemployment for the PA controlled areas, while the ILO published data is only available for the combined PA controlled areas. For this reason the PCBS data will be used for comparison between the West Bank and Gaza.

The unemployment rate varied dramatically between the West Bank and Gaza, with Gaza having the higher rate of unemployment. The rate in Gaza was 18.9%, 37.9%, 34.8%, and 41%, in 2000, 2002, 2006 and 2014, compared with 12.2%, 28.2%, 18.3%, and 17.3% in the West Bank for the same periods of time. This shows that the rate in Gaza was higher than that of the West Bank, with the difference increasing with time. This increasing trend started to show after 2007 and the Hamas control of Gaza. Such high rates were to be expected given the low investment in Gaza and the destruction of factories and productive plants, as well as the restrictions placed by Israel on the entry of lots of goods and raw materials.

Gaza had an employment rate of 41%, with a LFPR of only 44.4% in 2014. This means that only 29% of people of working age are in fact in work. The low employment rate has resulted in increasing poverty, with 40% of the population in Gaza living in poverty, and 21.1 % living in deep poverty.

If this is to be compared with the West Bank we find that, in 2014, the employment rate was 82.3%, with a LFPR of 46.6%. This means that 38.4% of the people of working age in work. Accordingly the poverty and deep poverty rates in the West Bank were less than those in Gaza.

3.3.8 Poverty.

The relative poverty line and the deep poverty line according to consumption patterns (for reference household consisted of 2 adults and 3 children) in the Palestinian Territory in 2012 were 2,293 NIS, and 1,832 NIS respectively. (PCBS, 2012).

Poverty data was only available for three years 2010, 2011 and 2012 at the PCBS website, but showed clearly that poverty in Gaza is more than double that in the West Bank. Poverty in Gaza was 33.7%, 38%, and 38.8% in the years 2009, 2010 and 2011 respectively, compared to 16.2%, 18.3% and 17.8% in the West Bank. The picture is even gloomier in Gaza when we talk about deep poverty, in Gaza it was 19.9%, 23% and 21.1% in the years 2009, 2010 and 2011, respectively, compared to 8%, 8.8% and 7.8% in the West Bank. Deep poverty in Gaza is almost three times that in the West Bank.

3.3.9 Public spending and collections.

There is no data published on how the budget is split between the West Bank and Gaza but, according to the Palestinian Prime Minister, Dr. Rami Hamdallah, the government in Ramallah continues spending on health, education, social affairs, electricity and water supplies, as well as paying salaries to over 60,000 military personnel who stopped working after Hamas took over Gaza (Sawa News, 2016)

This spending was estimated by many analysts to be around 50% of the PA budget. Dr Hamdallah also stated that spending on Gaza was over US$ 17 billion in 10 years, while Hamas was collecting taxes and spending it on its organization rather than spending it on the people of Gaza (Maan News Agency, 2017).

On the collection side, the government in Ramallah collected only customs and VAT on imports to Gaza from abroad. In 2014, therefore, Gaza's contribution to the customs and VAT collection was only 5.5%, compared to 22.5% in 2006, 26.5% in 1999, and 33% in 1995. No direct taxes are collected by the Ramallah government from Gaza.

We can conclude from the above that Gaza and the West Bank live under different conditions, politically, security and economically.

Politically, the two areas are ruled by different political parties, with Gaza ruled by the Islamic movement Hamas, which is not accepted by the international community, and does not receive direct aid, the aid being rather directed to Gaza through the West Bank government. The West Bank is ruled by Fatah, with the resulting government having international support.

On the security level, Gaza is under a strict blockade imposed by Israel, with a long list of dual use materials, including building materials, mobile communications equipment and machinery. Gaza has only one functioning crossing point with the rest of the world, and this is through Israel. In addition to that, Gaza has suffered from the consequences of three wars with Israel in 2008, 2012 and 2014, with extensive destruction to civilian houses, private sector productive establishments and infrastructure ("Middle East Eye, 2017). On the other hand, although the West Bank suffered from roadblocks and checkpoints, and Israeli control of over 60% of the West Bank, it has enjoyed a relatively calm security situation.

On the economic level, after the year 2007, and the Hamas control of Gaza, the economy of Gaza deteriorated dramatically and hit very low levels of outputs and GDP per capita, putting it in the bottom five economies in the world. This compares with the relatively stronger economy in the West Bank, although still with relatively modest growth and GDP per capita compared to neighbouring countries. It is still important to note that the GDP per capita of the West Bank is 17% of the world average, while it is 7.6% in Gaza.

It is worth noting at this stage of the research that when recommendations are formulated in chapter 7, most of them will be applicable to the West Bank, since there is a government that will be able to apply sensible economic recommendations, although Gaza clearly needs a plan for reconstruction after the massive destruction of the 2014 war.

4. Chapter 4: The PA Controlled Areas and the Three Gap Model.

4.1 Introduction.

It has been reported since the early 1960s that if aid is used in financing investment, it will lead to an increase in GNP and a steady decline in the dependence on aid (Chenery & Strout, 1966).They considered the use of aid to finance investment as a way of facilitating the transition to self-sufficiency, provided that the transformation process was accompanied by an increase in human skills, organizational ability, domestic saving and export production. Thus, aid should not be spent on consumption but rather on investment. During the transitional period, some internal resources must also be allocated, and revenues from the achieved growth should be used to finance more investment in the country's infrastructure. Economists researching the economies of less developed countries usually concentrate on the saving-investment limitations, as well as the balance of payment limitations. This discussion was well presented (McKinnon, 1964), (Chenery & Bruno, 1962) and (Chenery & Strout, 1966), in what they called the two gaps model. The two gaps were identified as the savings gap and the foreign exchange gap. (Bacha, 1990) extended this model to include the fiscal gap, in what was known as the three gap model. It was then seen by many that aid is needed to finance one or all of these three gaps: if domestic saving is not sufficient to finance investment, if export revenue is not sufficient to finance imports, and if local tax collection is not enough to finance government running costs and infrastructure investment.

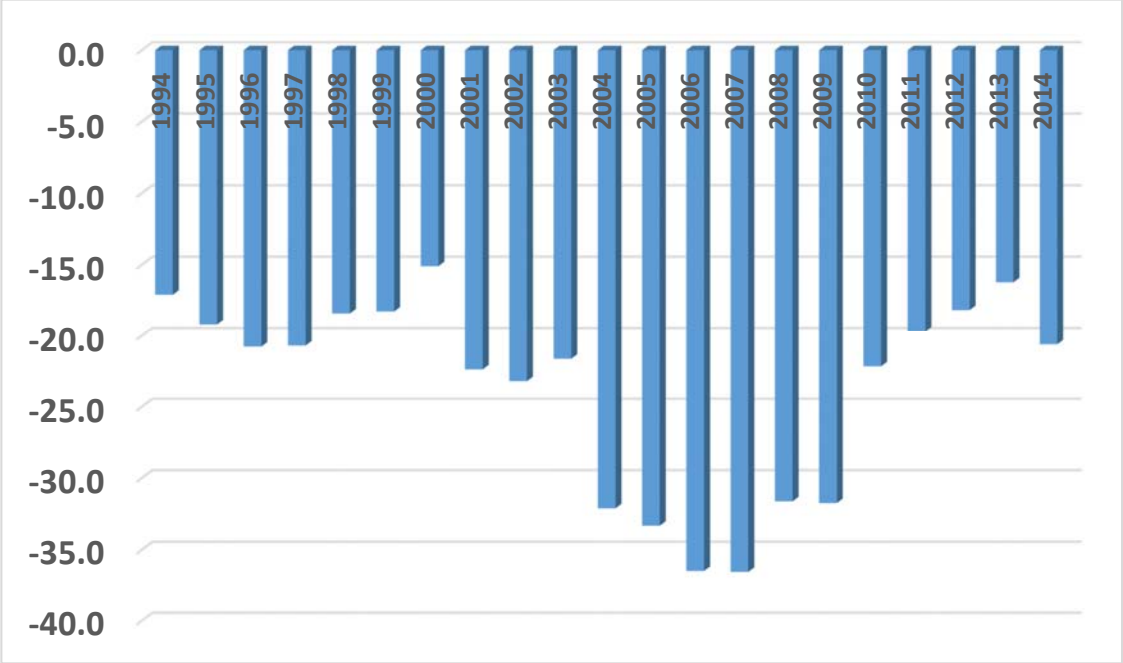
This chapter will examine if the economy of the PA controlled areas suffer from any of these three gaps. If the answer is yes for any of the three gaps, then we will discuss if external inflows, namely external aid, personal remittances and FDI, are financing these gaps and to what extent.

4.2 The Savings Gap.

The final consumption in the PA controlled areas was around 20% above GDP, which automatically means that there is negative domestic saving over the entire life span of the Palestinian Authority. This is shown in graph 4.1. The domestic saving as a percentage of

GDP ranged between -17.1% in 1994 to -36.6% in 2007, the year when aid almost reached its maximum, then it dropped again to -20.6% in 2014. This is compared to a positive domestic saving in the low income countries, low middle income countries, MENA region, as well as most of the neighbouring countries. According to the World Bank data, (World Bank, 2015), the MENA region had a domestic saving to GDP ranging between 24.4% in 1994 to 36.9% in 2014. The Palestinian Authority is the only country that had negative values of domestic savings over its entire life span.

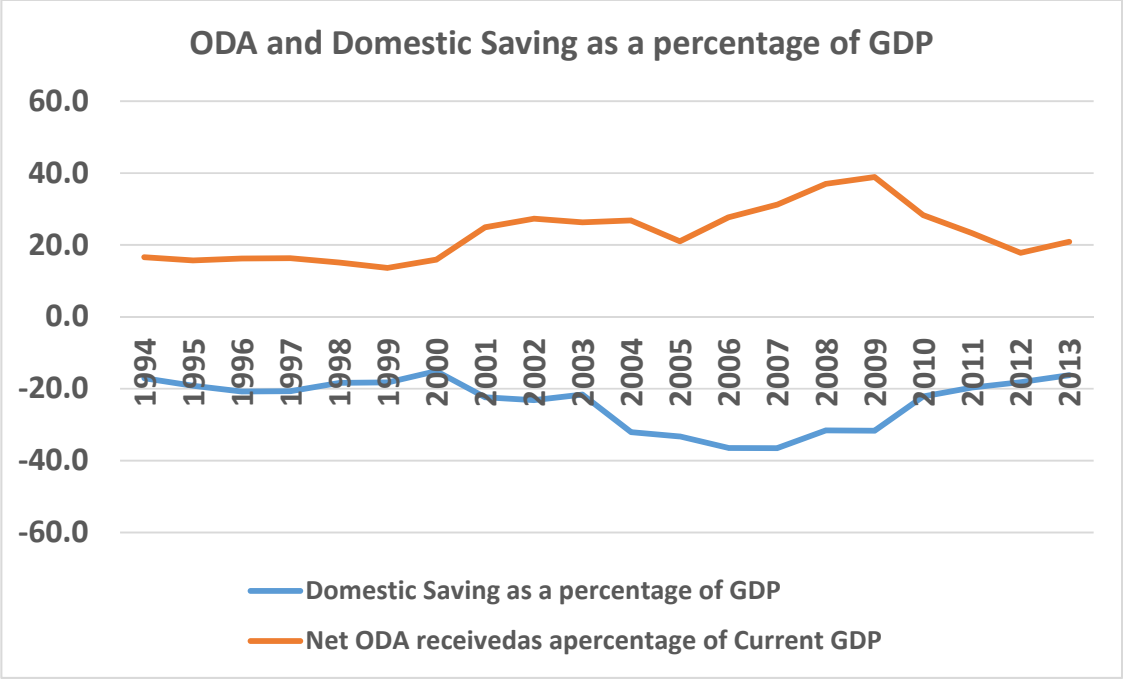
Graph 4-1 Gross Domestic Savings as a percentage of the GDP



Source: (World Bank, 2015)

Aid is not positively correlated with domestic savings. On the contrary, as aid to GDP reached its maximum value of 38.9% in 2009, domestic saving to GDP reached its minimum value of -31.7%. This gives us an indicator that aid is mainly spent on consumption.

Graph 4-2 Official Development Assistance and Domestic savings as a percentage of GDP



Source: (World Bank, 2015)

4.3 The foreign exchange gap

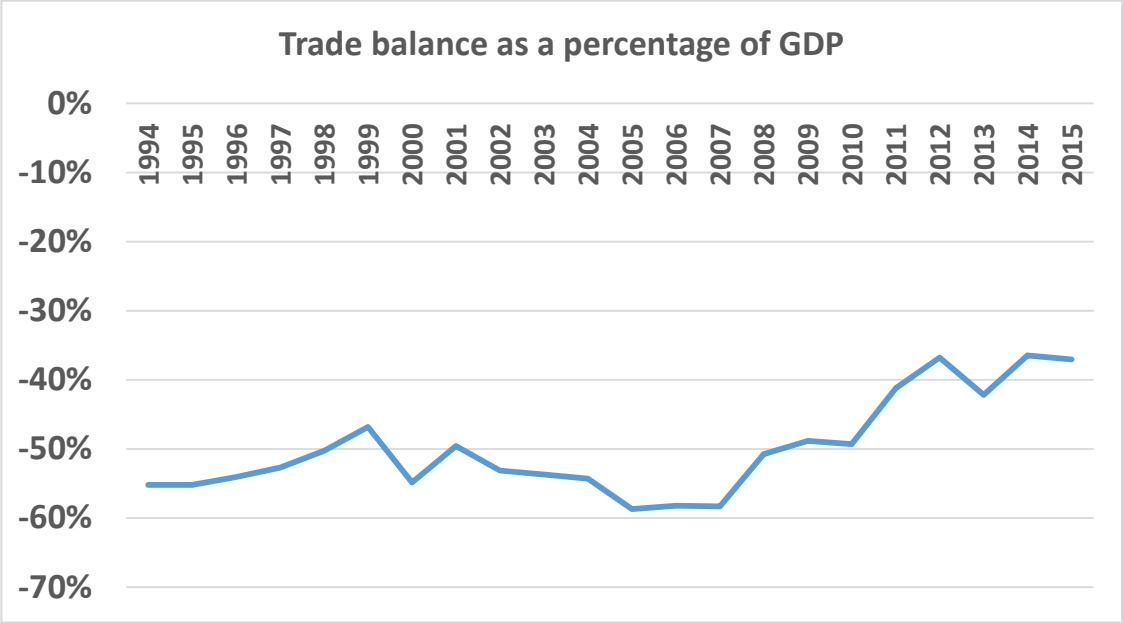
The foreign exchange gap exists when the trade balance is negative, as is the case in the PA controlled areas. For any economy to overcome this gap some external inflow is needed. This explains the smaller current account deficit compared with the trade deficit. The PA have had a foreign exchange gap over its entire 21 years' life span, with imports to GDP averaging at 64.7% while exports to GDP averaged to be 16.7%. This resulted in a net export of -48%.

The trade balance was negative over the 21 years' life span of the PA. As a percentage of GDP, it fluctuated around -55% in the first 17 years under study, before dropping to -37% in 2014. This drop was due to both the slowing down in imports and increase in exports. Imports increased by 18.9% in the period from 2010 to 2014, while exports increased by 41.6%. The high level of imports could be explained by the high imports of

electricity and fuel. The PA imports 100% of its fuel from Israel, as well as 98% of its electricity.

The high trade deficit in the PA controlled areas shows the existence of a foreign exchange gap. The existence of this gap is added to the existence of the domestic savings gap.

Graph 4-3 Trade balance as a percentage of GDP



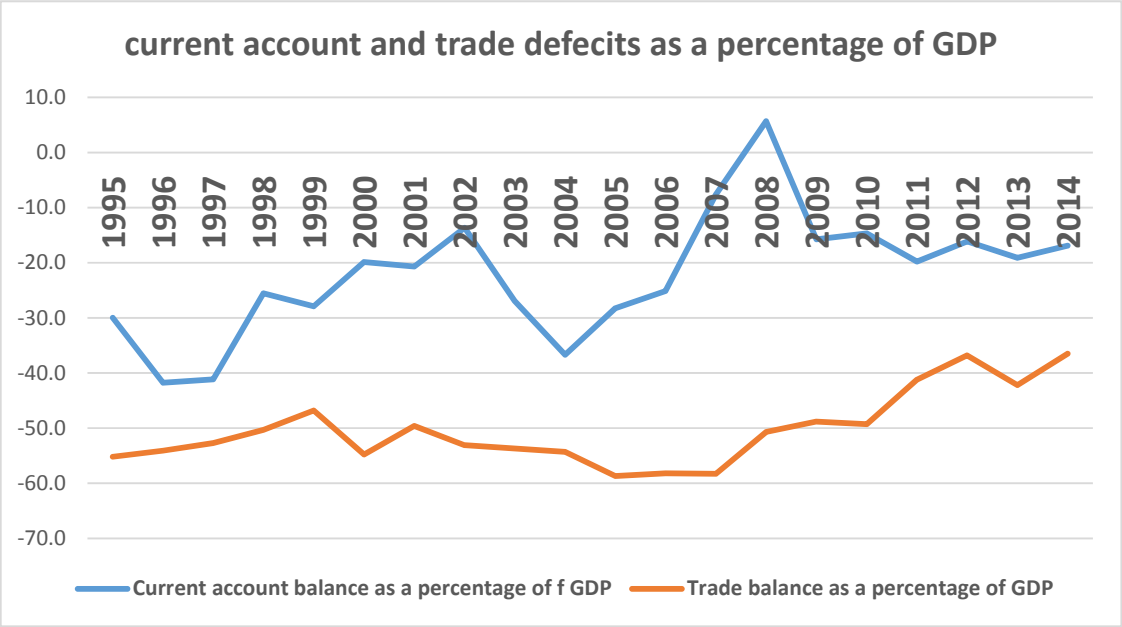
Source: (PCBS, 2015)

4.3.1 The current account.

The current account takes into consideration the net income from abroad and net current transfers in addition to the trade balance. During this period, the current account was in deficit, except for the year 2008. This means the high levels of external inflow could not cover for the trade deficit, except for the year 2008 where the external inflow in 2008 was 59.3% of the current GDP.

Graph 4.4 compares the trade deficit with the current account for the years 1995-2013.

Graph 4-4 Current account and trade deficit as a percentage of GDP



Source: (PCBS, 2015)

The current account deficit to GDP ranged between a minimum of 8.5% in 2007 and a maximum of 36.7% in 2004.

In 2002, net exports decreased by 21%, and personal remittances transferred by Palestinian labour working in Israel also dropped by 73%, this was due to the Israeli blockade imposed on the PA controlled areas between the years 2000 and 2002. The same scenario was repeated in 2007, after Hamas' takeover of Gaza. Although violence stopped in 2003, the economic effect of the period of violence continued, showing its maximum effect on the current balance in 2004, with a record deficit of 36.7%.

2008 was the only year with a surplus in the current balance, US$ 380.6 million. This was a direct result of the combined increase of the net income by 21.5%, due to the increase of the remittances of labour working in Israel, as well as a sharp increase of

current transfers by 29%. The current transfers increased from US$ 2.25 billion in 2007 to US$ 3.2 billion in 2008. This sharp increase was a result of the increase of aid to the government by 19.1%; transfers to other sectors also increased by almost US$ 1.34 billion, of which US$ 909 million were from donor countries.

4.4 The fiscal gap.

This gap is a direct result of the inability of the government to pay its own expenses for services that they have to provide for the public, such as health, education, social security, defence and other services, as well as infrastructure investment. This gap is shown clearly through the budget deficit. When the budget has a deficit, it means that the government is unable to finance itself through internal collection from customs duty, VAT, taxes and other tariffs, as well as natural resources and other sources of income. This deficit can only be solved by borrowing or external aid. In this section we will discuss the composition of the PA budget in terms of both collection and expenses, and examine if collection is enough to finance expenses.

4.4.1 Palestinian Authority Budget, Collection, aid and expenses.

The official published PA financial statements on the Palestinian Ministry of Finance website cover the years 2009-2014 (Palestine Finance Ministry, 2015). The data for the period 1996-2014 was obtained from the website of the Palestinian Monetary Authority (PMA, 2015).

The PA budget to GDP for the period 1996-2014 averaged around 34.0%, ranging from 27.5% in 1996 to 31.6% in 2014, and reaching a maximum of 56.3% in 2008. Expenses to GDP were higher, averaging 36.2% over the period. These values are higher than those for both the lower middle-income countries and MENA region countries, especially in the years of 2007 and 2008. The expenses to current GDP average for the lower income countries was around 17% (World Bank, 2015), compared to around 22% for the MENA

region, and 28% worldwide. This high percentage for the PA controlled areas is due to the high salary expenses.

The total budget for the period of hope was US$ 4.3 billion, an average of US$ 1.1 billion annually, 76% of which was financed by collection, and 24% by foreign aid. During the years 1996-1999, collection and current expenses were almost at balance with 94% of the aid to the budget going to development expenses, and only 6.0% to the current expenses. During this period collection was enough to finance almost all the current expenses including salaries, which occupied around 43.2% of the budget, compared to 22.8% spent on development and 34.0% on other expenses. Furthermore, during this period, budget to GDP was 27.8%, with collection to GDP being 21%. On the other hand, total expenses to GDP were 28.8%.

This period was therefore characterized by self-sufficiency in running expenses, with aid only used for development expenses. This division of budget was considered to be ideal for the Palestinian economy, with most macroeconomic indicators pointing in the correct direction.

After the violence in October 2000, the pattern started to change and violence started to show its effect on the budget, with Israel blocking the transfer of collected customs duty and VAT to the Palestinian Authority, storming Palestinian cities and preventing the movement of goods and people. This has meant that the PA has become unable to support its current expenses (World Bank, 2003).

During the three years of violence, the average budget kept the same value as of the previous period; around US$ 1.17 billion, but the structure of the budget changed dramatically. The collection part of the budget dropped from an average of 75.8% of the total budget in the first period of hope to only 42.2% in the second period of violence; and to highlight the drop more. Collection dropped from 79.4% in 1999 to 29.4% in 2002. This was due to the slowdown of the PA economy, as well as the drop in the PA's ability to collect as a result of the Israeli reoccupation of the PA controlled areas. Collection was only able to support 34% of expenses and 76.6% of salaries during this period. This period, therefore, marked the dependence of the PA on aid. Aid as a percentage of budget increased from 24.2% in the first period to 67.8% in the second

period, with aid to budget being 75.7% in 2002. 28% of that aid was used for development projects and the rest to finance the current expenses. Budget to GDP increased from 27.8% in the first period to 30% the second period.

During the third period of state building, the PA, with the help of the international community, tried to recover but the huge increase in the budget that resulted from the high increase in the total number of employees and current expenses made the PA more aid dependent. This increase in current expenses was accompanied with a drop in development expenses.

Average budget to GDP increased from 27.8% in the first period to 36.3% in the third period, reaching its peak of 56.0% in 2008, then dropped to 31.6% in 2014. Collection to GDP was kept at a level of 21.6%, a value close to that of the first period. The collection to budget, although it increased from the second period average, was still short of budget self-sufficiency, standing at an average of 59.6% compared with an average of 75.8% for the first period. The budget for development dropped dramatically over the third period, from 21.97% in the first period, and 24.12% in the second period to only 8.73% in the third period. This drop was gradual but continuous. In 2014, aid spending on development projects was only 4.46% of the total budget, while salaries continued to increase from 41.7% of the budget in the first period and 44.6% in the second period to 48.3% in the third period. This increase was also gradual but continuous increasing from 37.6% in 1996 to 52.7% in 2014.

To summarize, we can say that collection to GDP increased slightly from 21.4% in 1997 to 22.0% in 2014, with expenses to GDP dropping slightly from 30.0% in 1997 to 28.4% in 2014. This reduction was mainly in the development budget, however, which dropped from 23.2% of the expenses in 1997 to only 4.5% in 2014.

The dramatic changes in the PA budget started at the end of the period of violence with the appointment of a new finance minister, Dr Salam Fayyad, in June 2002, and after pressure from the international community on the Palestinian President Yasser Arafat.

Chairman Arafat appointed Dr Salam Fayyad[8] as a finance minister in order to convince Israel to transfer Palestinian VAT and customs duty revenue to the PA. The Israeli resumption of VAT and customs duty transfers to the PA started to show its effect in 2003, with collection to GDP increasing to 18.8%, almost triple its value of 2002.

With the level of unemployment increasing, however, the continuing closure of Palestinian areas, and the prevention of workers working in Israel, the new finance minister adopted a high spending policy, in both current and capital spending (World Bank, 2003).

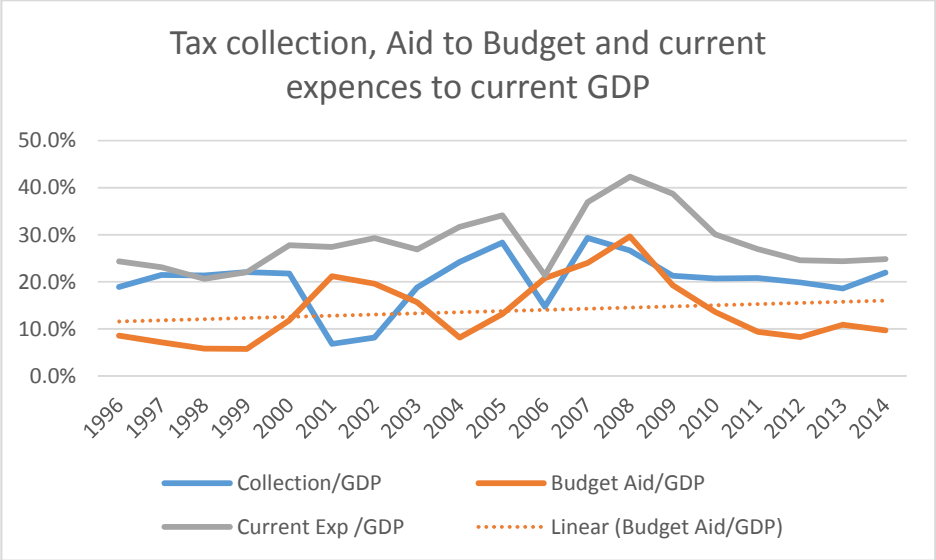
Salaries to GDP increased from 17% in 2001 to 26.5% in 2008. This was a policy that led to the unsustainability of the PA since its internal resources were unable to cover such expenses; the policy was financed by foreign aid.

Aid to budget as a percentage of GDP increased from 8.6% in 1996 to 29.7% in 2008. After 2008, and the record spending of the PA, the international community stepped in again to put a cap on aid and pressurized the PA to replace aid with collection. The aid to budget/GDP subsequently reduced to 19.2% in 2009, and kept dropping to reach a value of 9.7% in 2014, with only 2-5% of the budget directed towards development investment.

Current balance had a minimal value of US$ (-1) million in 1999, increasing to a maximum of US$ (-1,641) million in 2009, before it was reduced to US$ (-655) million in 2014.

[8] Dr Fayyad is a very well-known Palestinian economist, and an ex-employee of the World Bank, he worked for the World Bank between 1987 and 1995, before leading the activities of the Arab Bank in Palestine.

Graph 4-5 Tax collection, aid to budget and current expenses as a percentage of GDP



Source: PMA. (2015)

This sharp reduction in aid after 2009 could have been directed towards development rather being cancelled. The aid to budget could have been reduced, and rechanneled towards investment in the infrastructure and development projects.

To summarize the discussion it is worth noting the following:

- The PA budget have had a deficit during the 21 years under study.
- In the period 1996-1999, PA internal collection covered running expenses and aid was directed towards development expenditure.
- Collection to budget as a percentage of GDP increased rapidly from 2003, reaching 22% of the GDP in 2014.
- Aid to budget as a percentage of GDP increased between 2000 and 2009, then dropped from 29.6% in 2009 to 9.7% in 2014.
- Current expenditure was the main item in the spending, comprising more than 95% of it, with expenditure on development projects comprising a very small part of the budget.

This shows that the PA budget is aid dependent and that a fiscal gap exists. The existence of the fiscal gap completes the picture, with the existence of all three of the savings, foreign exchange and fiscal gaps. To finance these gaps external inflows are needed.

4.5 External inflow.

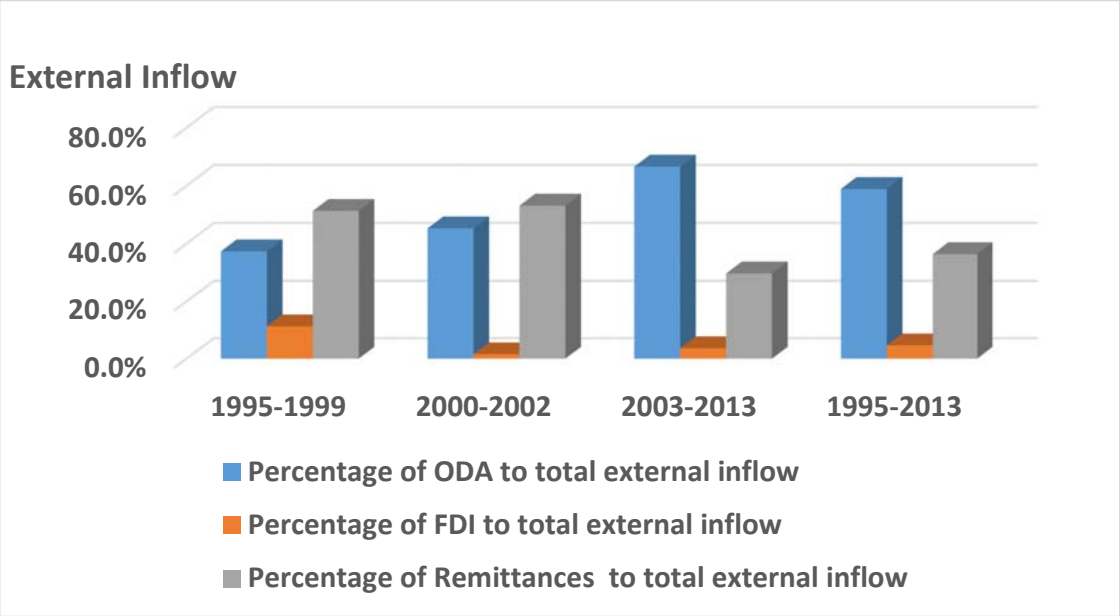
As shown in previous section, the Palestinian economy is a consumption based economy, with consumption averaging at around 120% of GDP. A major part of this consumption was met through imports, leaving a huge trade deficit. The savings gap was also evident, with negative savings over the full span of the PA age. This shows that the PA also suffered from a savings gap. The fiscal gap was also evident during the 21 years of the PA age. This shows that the PA suffers from all three gaps, which clearly indicates its need for external inflows of money.

External inflows to the PA controlled areas came from three major sources, foreign aid, personal remittances and foreign direct investment.

The external inflows to the PA controlled areas have been a major factor in the Palestinian economy. For the years 1995-2013 the external inflows were US$ 45.3 billion, which comprised 44.6% of the current GDP.

Official development assistance was the major element in the external inflow, comprising 58.9% of the total, with remittances coming second with 36.4% and foreign direct investment coming a lonely third with only 4.7%.

Graph 4-6 External inflows



Source: (World Bank, 2015)

4.5.1 Official Development Assistance (ODA).

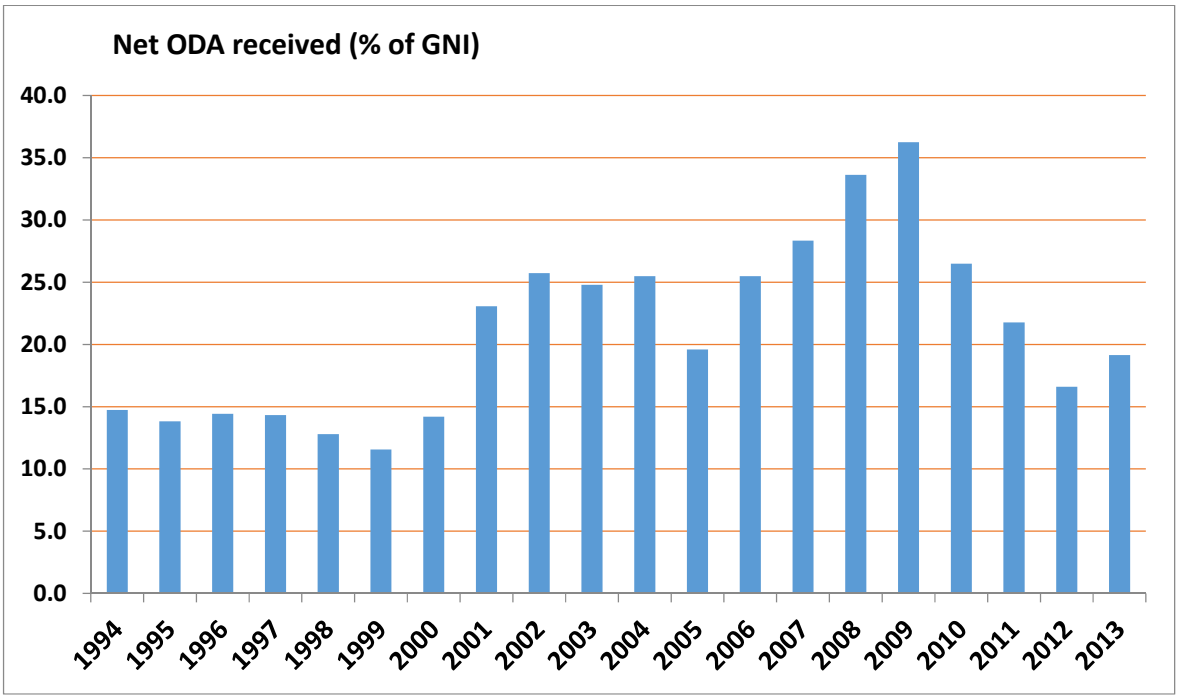
The total aid received by the PA in the period 1994-2013 was US$ 27.17 billion, an annual average of US$ 1.4 billion, and some 23.8% of the current GDP.

Net official development assistance to the PA controlled areas is divided into three categories; aid to international organizations, such as UNORWA and UNDP, aid to the PA budget, and aid spent directly by donors, mainly on solid waste management, private sector capacity building, road maintenance and other infrastructure sectors. For the later no data was available, but it was approximated by subtracting the total aid from both aid to budget and aid to international organizations.

Figures for the total ODA, and aid from international organizations, were obtained from the World Bank data, while the aid given to the PA budget was obtained from the Palestinian Monetary Authority. The remaining aid was considered to be the total aid spent directly by donors and given to non-governmental organizations.

As shown in graph 4.7, aid increased during the 21 years of the PA, from around US$ 472 million in 1994, to US$ 2,610 million in 2013; an increase of more than five and a half fold. The aid to GNI also increased from 14.7% in 1994 to 19.2% in 2013, reaching its peak in 2009 with aid to GNI of 36.2%.

Graph 4-7 Net ODA received as a percentage of the GNI



Source: (World, Bank, 2015)

During the period of hope the external inflow was US$ 7.7 billion, an annual average of US$ 1.5 billion, and some 44.3% of the current GDP. Aid was 37.4% of that total external inflow, with remittances comprising more than 51%, and FDI being 11.3% of the total external inflow. During this period, aid was at its minimum, reaching only 11.5% of the GNI in 1999. The trend of ODA during the period of hope was slightly decreasing, as it is shown in graph 4.7. This shows that, during the period of hope, the PA was heading in the right direction in terms of self-sufficiency, increasing collection from customs duty and VAT, reducing aid and increasing FDI and remittances. Aid to UN organizations during this period was 27.9% of the total ODA, but aid to the PA was not documented accurately due to the fact that the PA had no experience in official financial book

keeping, but it was understood that aid to PA budget was minimal, with donors allocating aid directly to the infrastructure, the private sector and NGO's without any government intervention.

In the period 2000-2002, where violence was the dominant factor, Israel stopped the transfer of customs duty and VAT money collected on behalf of the PA, causing severe financial problems and a budget deficit for the PA (World Bank, 2003). This deficit was balanced by external inflows, which amounted to US$ 5.86 billion for the period, an annual average of US$ 1.95 billion and some 46.5% of current GDP. This was an increase of 30% compared with the first period (World Bank, 2004). The share of aid to external inflows increased from 37.4% in the first period to 45.3% in the second period, with the share of FDI dropping sharply to 1.5%, and remittances retaining their value of 53%. In this period, ODA increased by 67%. Most of the ODA during this period was given to the PA budget in order to help in the payment of employees' wages. Aid to the PA budget as a percentage of total ODA increased from 7.9% in 2000 to 48.5% 2002; while aid to UN organizations stayed in the range of 22.5% - 25.7%.

After 2002 the violence started to calm down and the international community stepped in to help the Palestinian Authority, both financially and technically (World Bank, 2003), resulting in further increases in external inflows, especially aid. Thus, in the period of state building, the annual external inflows averaged at US$ 2.9 billion.

Aid increased from US$ 971 million in 2002 to US$ 2,610 million in 2013. The aid to GNI decreased from 25.7% in 2002 to 19.2% in 2013, reaching its maximum of 36.2% in 2009.

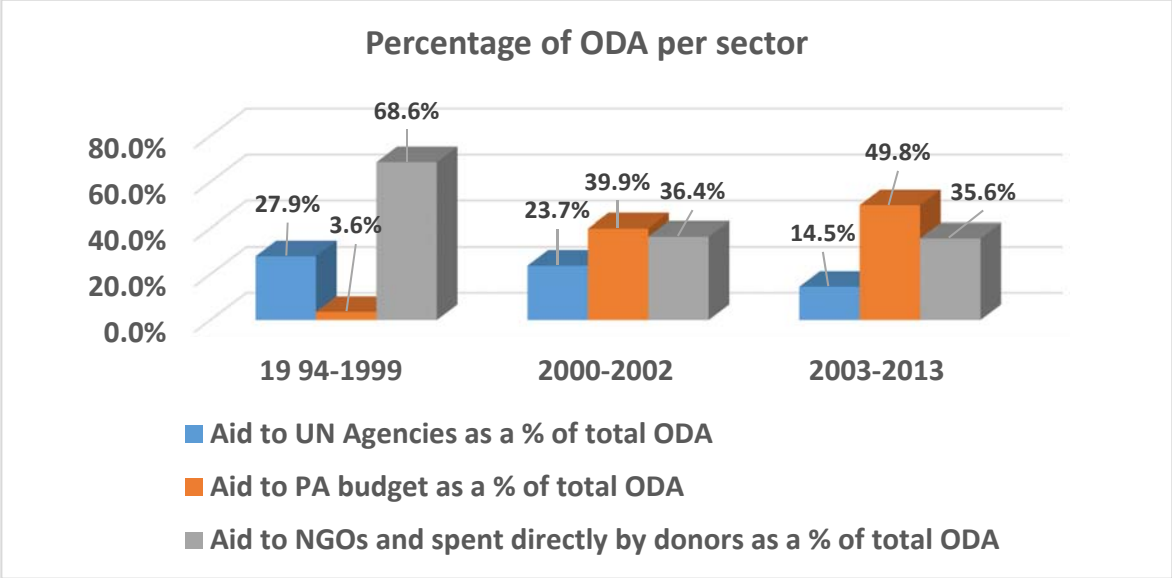
After 2009, the donor community started to reduce aid, which was substituted by tax collection. Aid to GNI dropped from 36.24% in 2009 to 19.5% in 2013.

The budget deficit before aid in the first period ranged between 6.4% in 1997 and 0.5% in 1999. In the second period, the deficit increased sharply, standing at 21.7% in 2000, and 70.8% in 2002. In the third period, the deficit ranged between 30-40%[9].

[9] With the exception of 2006, when the deficit reached 49.4%.

This deficit was covered by aid, and hence aid to the PA budget continued to be a dominant factor, averaging 48.9% of the total aid, and reaching 52.7% in 2013, with aid to UN organizations reduced to be only 14.5% of the total aid, causing severe problems to UN organizations such as UNORWA, and hence to the poor refugees that UNORWA serves, especially in Gaza.

Graph 4-8 Percentage of ODA per sector



Source: (World Bank, 2015)

The above discussion clearly shows that the economy and survival of the PA depends on the continuation of the flow of ODA. It also shows that aid is directed towards the PA's budget and hence to employees' salaries, and to relief activities offered by UNORWA, and very little is directed towards investment, resulting in a consumption driven economy.

4.5.2 Personal Remittances.

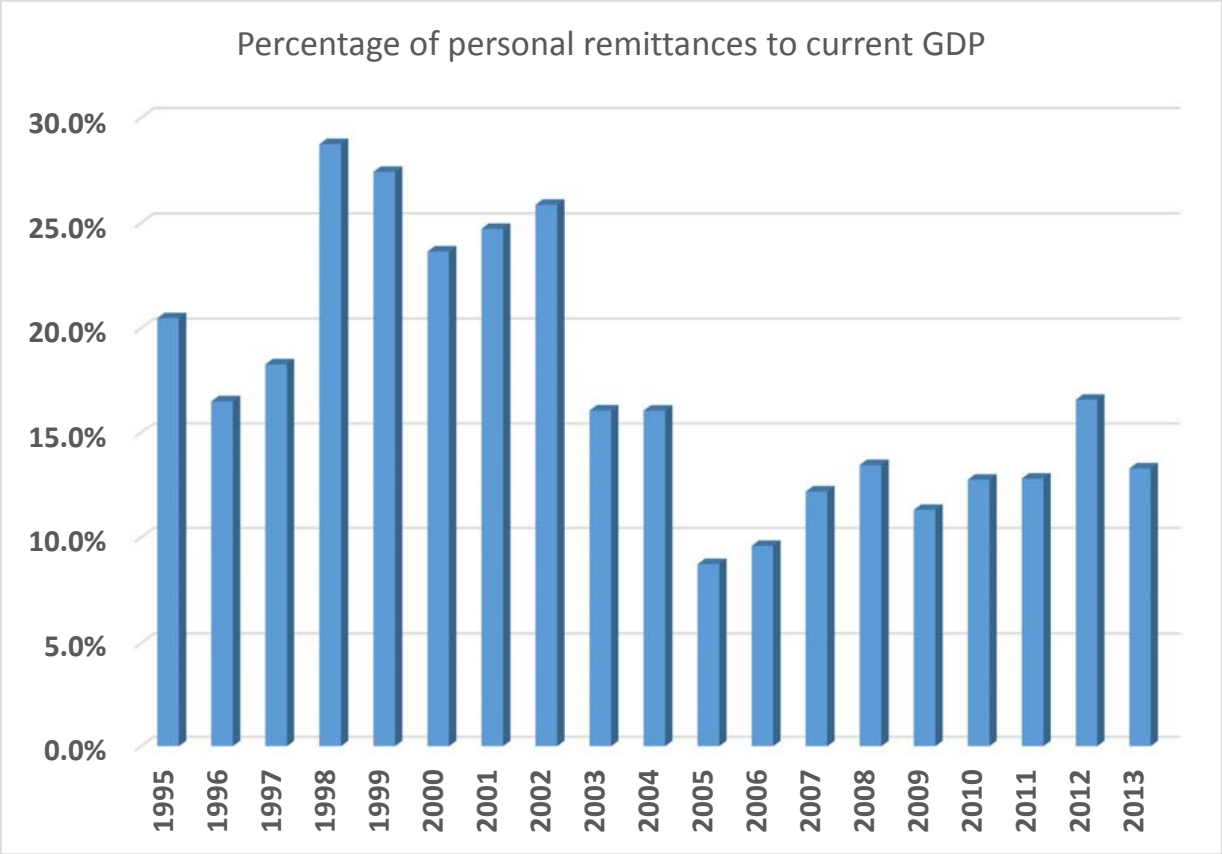
For the period under study, personal remittances comprised the second component of external inflows, counting for 36.4% of the current GDP, with an increasing trend through the course of the period in terms of current US$ values (from US$ 582 million in 1995 to US$ 1,499 million in 2013).

According to (Saad, 2015), personal remittances to Palestine consist of three components: the compensation of employees working in Israel, current foreign transfers and capital transfers, with the first, comprising the largest part. With the number of workers in Israel being very sensitive to security conditions, however, these remittances are very affected by political instability.

In the period of hope remittances were the largest component in the external inflows, amounting to around US$ 4 billion: 51.3% of the total external inflows and 22.7% of the current GDP. This high value was a combination of all three components: this period witnessed some high values of capital transfers, but workers' compensation remained the highest of the three components. Remittances to current GDP was 20.5% in 1995, dropping in 1996 and 1997, and increasing again in the following years to reach 27.4% in 1999 (Saad, 2015).

In the period of violence remittances continued to be the main component of external inflows, representing 53.1% with FDI dropping to a mere 1.5%. They also maintained their level in terms both of absolute value and relative to GDP. The remittances' current value was around US$ 1 billion annually, and the value in relation to GDP was 25.9% in 2002. (Saad, 2015) stated that the current foreign transfers increased during this period at the expense of a reduction in workers' compensation in Israel. This transfer was from Palestinian families in the diaspora sending money from abroad to help their families during the period of violence and Israeli siege.

Graph 4-9 Percentage of personal remittances to current GDP



Source: (World Bank, 2015)

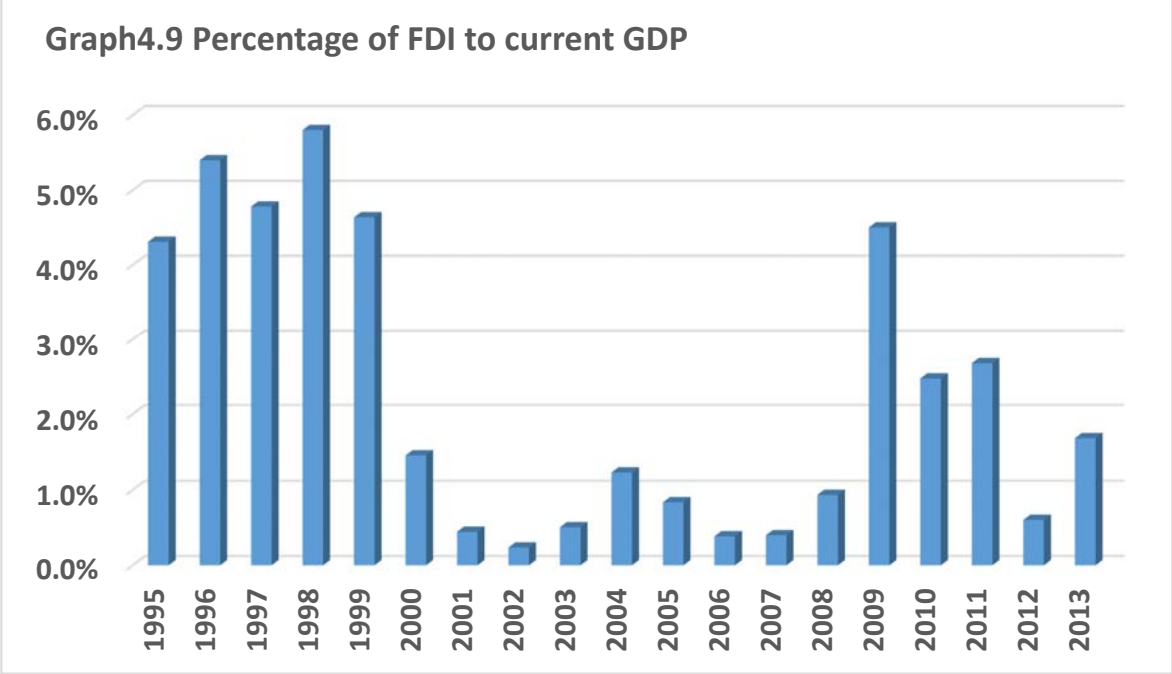
In the period of state building, remittances' share of the external inflows reduced sharply, along with their value relative to current GDP. The average share of external inflows dropped to 29.7% in the third period, compared to 51.3% and 53.1% in the first and second periods. Its value in relation to current GDP dropped from 27.4% in 1999 to 13.3% in 2013. This shows that the importance of remittances was decreasing and the importance of aid increasing. During this period, current and investment transfers were decreasing, with compensation of employees working in Israel becoming the dominant factor in remittances. During this period and after 2007, Israel started to increase the number of workers employed in Israel in order to compensate for the drop in external transfers; this was part of the Israeli Government policy of economic peace. Israel's

policy of increasing labour in Israel was applied only to the West Bank, however: Gaza remained under strict siege, with no workers allowed to work in Israel (Saad, *2015).*

4.5.3 Foreign Direct investment (FDI).

FDI proved to be a minor factor in the external inflow, and hence had no significant effect on the Palestinian economy. It comprised only a very small percentage of the total external inflows to the PA controlled areas, counting only for 4.7% of the total inflow from 1995-2013.

Graph 4-10 Percentage of FDI to current GDP



Source: (World Bank, 2015)

The FDI to current GDP ratio ranged between a maximum of 5.8% in 1998 to a minimum of 0.2% in 2002. Its share of the external inflow reached its maximum of 11.3% in the period of hope, dropping to 1.5% and 3.7% in the second and third periods, respectively.

In absolute values, the overall trend of the current value of foreign direct investment was almost a straight line, showing an increase from US$ 122.6 million in 1995 to US$ 188.6 million in 1999, but then the trend was reversed, with a significant drop until 2008. The trend reversed again year 2009, however, increasing gradually to over US$ 300 million, and then decreased again to be US$ 126 million in 2014. The trend of FDI as a percentage of GDP showed a decrease, as shown in graph 4.10.

Foreign Direct Investment was increasing when there was hope and political stability, then most of the investment was pulled out when violence erupted, showing again the total dependence of the Palestinian economy on political stability.

It took investors until 2009 to start investing again in the Palestinian economy, but this did not last for long, with FDI ranging between 2.5% and 1.7% of the GDP in the years 2010-2013.

The above discussion clearly shows that both aid and remittances have a significant effect on the performance of the Palestinian economy. Although FDI has a minimal effect, the effect of both ODA and remittances was mainly on consumption, with little effect on investment, this might explain why the Palestinian economy is based on consumption.

The descriptive analysis and discussion conducted in this chapter show that the PA controlled areas suffer from the existence of the three gaps: the financing gap, the foreign exchange gap and the fiscal gap. All three gaps need external inflows to cover them, with the inability of the internal collection to finance the deficits. But as per (Chisary & Fanelli. 1990), it is extremely difficult to cover all three gaps, at the same time. Their conclusion was based from experience gained in Latin American countries in the 1980s. The most important gaps to focus on is the savings-investment gap, since when aid is pumped into investment, its revenue will help in covering the other two gaps.

In the PA controlled areas, although aid is important to help in covering the gaps partially in the short run, the descriptive analysis showed that it is not the solution to cover all three gaps in the long run. For example, in order to solve the foreign exchange gap, the export of products has to increase and/or imports have to decrease. In order for that to occur, investment in export oriented industries has to increase as well as investment in

the development of products that will substitute for imports. The existence of a savings gap, however, means that there are no funds available to invest. In addition, the PA government has no funds available to invest in the poor infrastructure in the areas it controls, since most of the budget, and the aid to the budget, is spent on running costs. Also, with the nature of the Paris protocol, the PA cannot use any monetary policies. This puts the PA's economy in a vicious circle. The way that aid is spent does not help the PA to be independent and self-sufficient. Some of the aid must be spent on investment. This issue will be discussed mathematically in chapter 5 and chapter 6, where it will be tested whether this finding can be supported mathematically, with the results used to develop recommendations to help guide the PA's economy. Our discussion will be based on increasing the share of GDP held by agriculture and manufacturing back to their 1990's values. In order to achieve that more investment has to be pumped into those two crucial sectors of the economy.

5. Chapter 5: Mathematical Model.

5.1 Introduction.

As discussed in the previous chapters, the case of the Palestinian Authority is considered to be of a special nature, due to its young age, for having self-autonomy but not full statehood, its inability to control aspects of statehood like currency and borders, and for its inability to control movement between its own cities. Hence, we are not discussing the economy of a state, but rather the economy of some areas that are controlled by the PA. These factors make the PA very vulnerable and in strong need for aid. These very special circumstances are very well known to the international and donor community, and for these reasons Europe, in particular, and some other donor countries, have pledged large sums of foreign aid to compensate the Palestinians for their inability to control their economy and lives. These factors are beyond the PA's control and they are forced to live under them against their will.

The main idea behind the peaceful agreement signed in 1994 between the PLO and the State of Israel was the promotion of economic cooperation between the PA and Israel in order to enhance economic growth for the two entities. For the achievement of this goal, the donor community pledged US$ 2.8 billion as aid to the PA for the years 1994-1998. Over half of this was for developmental projects and technical assistance. Very little was directed towards the PA budget (World Bank, 1996).

As it was shown in the previous chapter, aid to the PA increased with time, as an absolute value, a percentage of GDP and US$ per capita.

Aid to budget was very minimal during the first six years of the PA's life, then it increased dramatically after the second intifada, reaching values of 58.4%, 71.4% and 52.7% of total aid disbursed in the years 2002, 2009 and 2013. (World Bank, 2015). This shows that PA's economy and budget after the year 2000 became highly dependent on aid.

The objective of this chapter is to investigate the impact of aid on per capita GDP, and to determine the effectiveness of aid on the PA's economy in general. This will be

conducted through the solution of three simultaneous equations, taking into account non-linear effects of human capital on economic growth.

5.2 Theoretical Literature Review.

Foreign aid, known as Official Development Assistance (ODA), was defined by the Development Assistance Committee (DAC) in the late 1960s and early 1970s, as "those flows to countries, territories, and multilateral institutions. And must be administered with the promotion of the economic development and welfare of developing countries". It then added, "The outflow must carry an element of at least 25% grant" (OECD, 2013).

Aid to developing countries is high and on the increase, amounting to over US$ 50 billion in 1991, averaging 8% of the recipient countries, GNI in the period 1981-1990 (Bonne, 1996). It has increased to a record total of US$ 165.4 Billion in 2012 (Lacalle-Calderón, Chasco, Alfonso-Gil, & Neira, 2015)

The outflow of aid to developing countries has been the subject of much debate among economics researchers. The questions that economists are trying to answer include: Does aid promote growth and development? Does it reduce poverty? What are the tools, policies and mechanism that should be used to achieve growth and development, and reduce poverty in the recipient countries?

One of the prominent researchers who laid the theoretical foundation of the concept that aid can promote economic development was (McKinnon, 1964), through the two-gap model. He argued that some developing countries suffer from a savings gap and a foreign exchange gap. The savings gap results from low domestic savings in typical developing countries. These low domestic savings fall short of the required investment, and hence hold back growth. He argued that aid can fill this gap. The foreign exchange gap results from import surpluses, or balance of payment deficits, which again can be covered by foreign aid.

Beyond the two-gap model introduced by (McKinnon, 1964) and (Chenery & Strout, 1966), (Bacha, 1990) added the fiscal gap, thereby introducing the three-gap model. This gap arises from the inability of domestic taxes to finance government expenses, domestic

projects and other public investment. (Hanson & Trap, 2001) argued that foreign aid can also help in covering this gap. They also suggested that even without the existence of this gap, aid can promote growth by targeting investment in infrastructure, since such investment will motivate private sector investment, and hence promoting growth.

Other researchers argued that aid might not promote growth, but rather corruption, mismanagement of funds, dictatorship and hence poor economic policies. It may also encourage public spending and consumption, and hence increase the size of government, resulting in budget deficits and unsustainable government (Boone, 1996).[10]

According to many publications the effect of foreign aid on economic growth in developing countries is not necessarily obvious. For example, (Ekanayake & Chatrna, 2010) conclude that foreign aid has a mixed effect on the economic growth in developing countries. When the foreign aid effect was estimated according to different regions, the findings were that the effect is negative in Asian and Latin American regions and positive in African regions. On the other hand, when the effect was estimated according to income levels of countries, the findings were that the effect is negative for low-middle income countries, and positive for low income and upper-middle income countries.

Hence the literature suggests that there are variations and contradictions in the effectiveness of foreign aid on the economic growth of recipient countries. The studies of (Burnside & Dollar, 2000) and (Alvi, & Mukherjee, 2008), reported that while the positive effect of foreign aid on economic growth is conditional on a good policy environment which includes, but is not limited to, fiscal, monetary and trade policies, the effect of aid will be minimal in the presence of poor quality policies. They therefore advised that aid should be systematically conditional on good policies. Some other researchers, like (**H**anson & Trap, 2001), suggested that aid increases growth regardless

[10] There is a strong believe by many that the PA suffers from both corruption and dictatorship. Sawsan Ramahi wrote in "Middle East monitor, Dec 2013", that the EU accuses the PA of mismanaging the spending of approximately Euro 2 billion between 2008-2012. Also, a poll by JMCC in 2012, suggested that 82.3% of those polled said that there was corruption in the PA. A World Bank report issued in 2012, suggested that the PA government had made significant steps in the direction of countering corruption, but that more work is still needed, especially to control the Palestinian Investment Fund (PIF), and the Petroleum commission, which runs under the umbrella of the finance ministry, and is the sole distributer of petrol materials in the PA controlled areas. The report also questioned the financial transparency of the PA. So, we suggest that more research is to be conducted on the effect of aid on corruption in the PA.

of the existence of good policies, but they also supported the hypothesis that aid has an impact on growth through investment. (Channing, Jones, & Trap, 2011) supported the argument that aid has a moderate impact on growth provided it targets physical public investment as well as human capital, especially in health care.

On the other hand, Djankov, Garcia-Montalvo, & Reynal-Querol, n.d.) found very little evidence for the positive impact of aid on economic development, but on the contrary stated that foreign aid reduces the level of democracy in recipient countries. (Boone, 1996) reached the same conclusion ten years back, suggesting that aid does not significantly increase investment, nor benefit the poor, he also found out that the impact of aid depends neither on policies nor on the type of government. Also (Easterly, 2003) and (Easterly, Levine, & Roodman, 2004) crossed the idea that aid buys growth, suggesting that donor countries should reduce their expectations from aid, and settle on the fact that aid helps some of the people for some of the time, but it will not be the catalyst of wide social transformation within a society.

(Nowak-Lehmann, Dreher, Herzer, Klasen, & Martínez-Zarzoso, 2012) analysed the effect of foreign aid on per capita income, investment and domestic savings by using time series perspective for a sample of fifty countries. They found out that aid has insignificant or a small negative impact on per capita income, especially in highly aid-dependent countries; in addition they concluded that aid has a small positive effect on investment, but has a significant negative effect on domestic savings.

(Bearce & Tirone, 2010), meanwhile, argued that foreign aid can promote economic growth in recipient countries by facilitating economic reforms, but only if donor countries keep their own strategic benefits associated with aid to a minimum,[11] otherwise the foreign aid will be ineffective, since recipient countries cannot credibly enforce their conditions for economic reform.

Poverty reduction is also a concern in the literature. (Collier & Dollar 2002) suggested that aid is effective in reducing poverty, and estimated that over 10 million people were lifted out of poverty annually in their sample countries. They also suggested, however,

[11] This means Donors should keep their own agenda away

that this number could increase to 19 million people if accompanied by effective macroeconomic policies. They concluded that aid should be conditional on good policies. This conclusion was also proposed by (Sachs et al., 2004) , who suggested that some countries, including most sub-Saharan countries, are stuck in a poverty trap and are too poor to grow, no matter what their countries' economic policies are. They concluded that more aid must be pumped into these countries in order to overcome the assumed poverty trap.

(Adamu, 2013) paper examines the effect of foreign aid on economic growth in member countries of the Economic Community of West African States (ECOWAS) using panel data for 1990-2009 and a model of three simultaneous equations. The researcher found that the effect of foreign aid on economic growth among ECOWAS countries was positive and strong. The paper concluded that domestic investment, exports and international reserves have a positive relationship with foreign aid. Also, domestic savings and exchange rate were found to be positively related to investment.

One unique analysis was conducted by Lacalle-Calderon et al. (2015), examining the effect of aid and microfinance on growth. They argued that ODA has no mediating mechanism to impact growth, while microfinance has two significant transmission mechanisms, private consumption and private investment, although only the latter was found to have a positive and significant impact on growth. They recommended that the donor community should allocate resources to the microfinance industry in order to provide more options for the poor in choosing their own path to participate in the economic development of their countries.

Very little research has been conducted on the effect of aid on the Palestinian economy, although some researchers have discussed aid in the context of other research. All researchers, however, agree that aid is important for the PA's existence, both to cover the PA's budget deficit and to help in all other aspects of the economy. Aid, however, will not drive the Palestinian economy into sustainability without the end of Israeli occupational measures.

(Cali, 2011) concentrated in his research on the huge trade and budget deficit that the PA faces, arguing that it will be impossible for the Palestinians to finance such deficits given

the Israeli restrictions on the Palestinian economy. He also argued that part of the trade deficit is covered through remittances of Palestinians working in Israel, but this has resulted in the shortage of skilled labour in the PA controlled areas, and an increase in labour costs. He also claimed that foreign aid has reduced the self-sustainability of the PA. Cali argued that dependence on aid has reduced the government's accountability to its own citizens, and hence reinforced a lack of democracy. He concluded that all of the above symptoms are typical of the "Dutch Disease"[12]. He finally concluded that the main problem is not with aid, but rather with the way aid is spent, mainly on budget support and emergency relief activities.

(UNCTAD, 2007), as part of its technical assistance given to the PA, constructed a computerized quantitative framework that empirically evaluates and charts the historical relationship between key macroeconomics aggregates. The framework was used to evaluate the PA's economy under different scenarios, using a set of supply and demand side policies and factors to test the PA's capacity for sustained economic growth and development for the years 1990-2010. Among the key findings arising from the model was the negative impact of the Israeli closures policy, represented by the number of closure days per year, this policy had negatively affected exports of labour, services, and goods to Israel and the rest of the world. On the other hand, it had a positive impact on imports from Israel and the rest of the world, but a negative effect on the competitiveness of domestically produced goods. The most important finding, however, was that "political stability, free mobility, and increased donor support are necessary in order to jump-start the economy and ensure recovery in the short term, but they are not sufficient to sustain the high growth rates needed to reduce unemployment and poverty meaningfully in the long term" The model predicted the continuation of the trade and budget deficit and more dependency on the services sector and reliance on Israel as a single trading partner.

[12] **Dutch disease** is the negative impact on an economy of anything that gives rise to a sharp inflow of foreign currency, such as the discovery of large oil reserves. The currency inflows lead to currency appreciation, making the country's other products less price competitive on the export market. Source: (Financial Times Lexion, 2016).

(Qabajah, 2012) investigated the long term sustainability of the PA through a descriptive analysis of the fiscal data of the PA for the years 1995-2011. He argued that the PA had no fiscal deficit in the years 1995-1997, a small surplus in the years 1997 and 1998, then the budget had a deficit in all the years after that. Especially after the second intifada of 2000, the deficit reached a huge level of US$ 1 billion in 2011. The study concluded that the PA's budget will not be sustainable, either in the short or long run, given the same political atmosphere and using the same macroeconomic policies. He attributed this to the high salaries bill, which averaged 23% of current GDP over the years of the study, compared to a world benchmark of 10.0%. He also noted the effect of the high level of current expenses, which averaged 43% of the GDP in 2009, compared to 11.6 in Egypt and 23.6 in Jordan. In terms of collection, he noted that VAT and customs collection are in line with international standards and neighbouring countries, despite the very low VAT collection from Gaza, which was estimated to be only 6% of the total VAT collection of the PA. These results indicate the continuing need for foreign aid to budget, in order for the PA to continue functioning.

(Abu-Eideh, 2014) examined the impact of the size of the labour force, real gross capital formation, real domestic exports and imports of goods and services, and political stability on real GDP in Palestine (PA controlled areas). He used data published by the PCBS, and regressed it using a standardized–Copa-Douglas production function. He found a positive relationship between the size of the labour force, the gross capital formation and exports with real GDP, and a negative relationship between imports and political stability with real GDP. He recommended that the PA should concentrate its macroeconomic policies around increasing the level of investment in order to boost other production sectors and increase exports. According to Abu-Eideh, investment in the PA controlled areas is the main factor behind growth.

(Herver, 2006) examined the effect of foreign aid on the Palestinian economy under the continuation of Israeli occupational measures. He started by questioning the idea and philosophy behind foreign aid to Palestine after the Oslo peace agreement "foreign aid to the Palestinians was designed to promote an independent Palestinian economy". For this reason aid was pumped into developmental and job creation projects in the first six years.

Then, in subsequent years it was pumped into the PA budget and humanitarian activities. He concluded that the basic idea (of economic prosperity) behind foreign aid to the PA did not materialize, but on the contrary the PA economy and government became aid dependent. He argued that the aid spending was reversed from 5:1 in favour of development in the first years of the PA's life, to 7:1 in favour of crisis management after the second intifada. He concluded his article by stating that the increase in aid, and the way it was spent, had turned the economy of the Palestinian controlled areas into an aid dependent economy, both in the short and medium run, rather than driving the economy towards growth and sustainability.

(Shoukair, 2013) in a PhD thesis submitted to the University of Portsmouth in the UK, examined whether the Palestinian economy suffers from the "Dutch Disease", and if so what are its sources. He argued that aid is a major source of the "Dutch Disease", and attributed the ineffectiveness of aid to the symptoms of the "Dutch Disease" symptoms. He also proved empirically that under the existing political and economic constraints, mainly created by Israel, the economic limiting factors were exogenous, and foreign aid had only a small chance to boost the tradable sector significantly. He concluded that foreign development aid cannot boost GDP unless the political and economic constraints were removed. In his analysis, he mixed the effect of remittances and foreign aid, and concluded that the Palestinian economy shows strong evidence of some of the "Dutch Disease" symptoms, such as: high unemployment rate, low growth, a large share of the non-tradable sectors, and a smaller share of the tradable sectors, and a decreasing proportion of exports to GDP.

(Petri, 1997) attributed the "Dutch Disease" symptoms the PA suffers from to the type of economic relationship between the PA and Israel, which gives Israel a strong control over the PA's economy. He argued that with continuous levels of exports-imports, the PA economic crises will continue, showing that the PA exported only 14% of its output, and that these exports paid for only 20% of the PA imports. The remaining 80% must be financed by external inflows, mainly remittances of Palestinian labour working in Israel and foreign aid.

(Saad, 2015) discussed in depth the effects of remittances on the Palestinian economy. He examined the impact of the inflow of remittances on key macroeconomic variables, including economic growth. He found that a US$ 1 increase in remittances will immediately increase consumption, imports, investment and income by $0.55, $0.48, $0.26 and $1.33 respectively. One notable result is the positive effect of remittances on investment, although it was the smallest effect compared with the other economic variables, but it was the most important. This means that Palestinian labour force in Israel used some of their income to invest in business for themselves or for their family members.

(**A**bdullah, & Hen, 2016), studied the impact of direct foreign aid on the Palestinian private sector in terms of its quantity, effectiveness and the way it was spent. They used a descriptive analysis based on data obtained from the OCED and the PCBS and PA ministries, and private sector institutions. They argued that foreign aid to the private sector was minimal, and reported it to be around 5.2% of the total aid given to the PA. This aid was mainly spent on private sector organizations, and research conducted by those organizations or on their behalf. Accordingly, they concluded that it was very difficult to find any clear positive impact on the private sector as a result of this aid. They recommended that aid should be directed towards productive activities, either in grants or soft loans, especially those projects run by young men and women.

(Abed Alkareem, & Makhool, 2005) studied the effectiveness of the foreign aid donated to the Palestinians in the period 1994-2004. They used a descriptive analysis to evaluate the impact of aid, and accordingly made some recommendations. They divided the period under study into two periods, the period of hope between 1994 and 1999, and the period of the second intifada between 2000 and 2004. During the first period annual aid amounted to only US$ 500 million which jumped to US$ 1000 million, with the majority of aid during the first period spent directly on infrastructure, while during the second was period the majority of aid was spent on humanitarian aid, and as budget support. During the second period only 6% spent on productive projects and 10% on infrastructure. They concluded that aid was positive in the first years of the PA time, when it was spent mainly on infrastructure. In the second period, aid was positive in terms of helping the

PA in spending on education and health, but it failed in promoting sustainable economic growth, due to the Israeli annexation of the PA economy. They recommended that more aid should target private sector productive projects, through loans and grants, and through help to SMEs.

An extremely important report issued by the World Bank in 2012, and discussing the economy of the PA over the period of 2006-2010, concluded that the economy is aid driven and it has non-sustainable growth, despite a high level of growth in the five years prior to the report. It also concluded that any sustainable growth has to be led by a dynamic private sector. It also laid the grounds measures that need to be put in place to achieve this, including, but not limited to, improvements in the PA's legal and educational systems and Israeli relaxation of restrictions on movement (World Bank, 2012).

After six years no major improvement in the PA economy was monitored, despite the fact that the World Bank in 2015 acknowledged positive developments in both the PA's legal environment and some relaxation of Israel restrictions. This points to a missing factor that the report failed to identify. The report then recommended that the PA should reduce spending, by controlling its wage bill in order to cope with the anticipated drop in aid. This recommendation contradicts with the fact that the PA's economy is a consumption led economy, thus if consumption is cut then it must be made up for through investment, but, no recommendation is made for the donors to help in replacing aid to budget into aid to investment.

5.3 Empirical Model.

The model discussed in this chapter will be based on the model of (Adamu, 2013), which examines the impact of foreign aid on economic growth in members of the Economic Community of West African States (ECOWAS) using panel data from 1990-2009, and a three simultaneous equations model.

This Adamu´s model is based on the classical growth model, which consists of initial income, capital stock, labour force, investment, human capital and political stability. In her model, she considered the neoclassical production function:

$$Y = F\,(A, K, L) \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (1)$$

Where A is the level of technology, K is the capital stock, L is the quantity of labour, and Y is the output.

Differentiating equation (1), with respect to time dividing the two sides of the equation by Y, and rearranging the terms yields:

$$\frac{Y\prime}{Y} = \frac{A\prime}{A} + (F_k.\frac{K}{Y}).(\frac{K\prime}{K}) + (F_L.\frac{L}{Y}).(\frac{L\prime}{L}) \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots(2)$$

Where: $\frac{Y\prime}{Y}$ is the continuous time ratio of growth, $\frac{K\prime}{K}$ is the growth ration of capital stock, and $\frac{L\prime}{L}$ is the growth ratio of the labour force. F_k and F_L are the marginal products of capital and labour respectively, and $\frac{A\prime}{A}$ is the Hicks-neutral rate of technological progress (Adamu, 2013).

So, according to this author, the basic Solow (exogenous) growth model gives the growth rate of output or income, depending on the growth rate of technical change, labour or population and capital stock, and in order to test if aid works through the investment link, she suggested that we should show how (i) investments affect growth, and (ii) aid affects investment.

Accordingly, she suggested a regression in which per capita income is driven by aid, investment, human capital and other factors. Aid itself is explained by a vector of variables that includes investment, population and exports. Finally, investment depends on aid, domestic savings (in the Palestinian case, this was ignored, because it had some negative values over some years), and foreign direct investment (FDI).

5.4 Model Specifications.

Adumu (2013) suggested modelling the growth-aid relationship as a system of equations. As per (Juselius, Møller, & Tarp, 2013), the solution of the simultaneous equations allows for the measurement of more complicated effects of aid, as well as allowing the identification of direct and indirect effects.

As per (Adamu, 2013), the main advantage of this model is its use of simultaneous equations, which solve the endogeneity problem for some explanatory variables, especially foreign aid. This will give us the opportunity to measure the direct and indirect effects.

The first equation of the model regresses economic growth (proxied by per capita GDP) on foreign aid, foreign direct investment, gross domestic investment, human capital, inflation rate and level of exports. Adamu's original model regressed in addition to those variables, the interest rate, but this variable was omitted from the equation for the case of the PA controlled areas since this data is not available because the PA does not have its own currency, but rather uses three major currencies, the Israeli shekel, the Jordanian Dinar and the US Dollar, which have different interest rates decided by the banks, with no government guidelines, and no central bank setting these values.

The second equation regresses foreign aid on gross domestic investment, population, inflation rate, level of exports, international reserves, and a dummy variable for political stability. The variable of international reserves is negative in Palestine and hence it was omitted from the second equation.

Finally, the third equation regresses gross domestic investment on foreign aid, inflation rate, foreign direct investment, exchange rate, national savings and a dummy variable for political stability. For the Palestinian case in this equation, both the interest rate, and the national savings were omitted from the equation as the national savings in Palestine was negative in all of the years under study, and the interest rate data was not available, as discussed earlier.

According to economic and trade theories, economic growth depends positively on human capital (labour), physical capital (proxied by investment), exports, FDI and foreign aid flows. It depends inversely on the inflation rate, however.

Thus, the first equation for the dynamic model can be represented by the following equation:

$$LPCY = F (AID, INV, HK, FDI, INFL, XPORT, u_1) \quad \ldots\ldots\ldots\ldots\ldots\ldots (3)$$

From the literature on theoretical and empirical determinants of foreign aid, it can be assumed that foreign aid flows to the Palestinian Authority controlled areas, and will depend positively on investment, exports and population growth, but inversely on the inflation rate.

Thus the second equation for the dynamic model can be represented by the following equation:

$$AID = H (INV, POP, INFL, XPORT, POLDUMMY) \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (4)$$

Finally, based on economic theory and previous empirical studies, it is appropriate to assume that investment depends positively on foreign direct investment, foreign aid inflows and exchange rate, but inversely on the inflation rate.

Thus, the third equation for the dynamic model can be represented by the following equation:

$$INV = G (AID, FDI, EXRT, INFL, POLDUMMY) \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (5)$$

Where:

LPCY = GDP per capita (a measure of economic development growth).

AID = foreign aid inflows

FDI = foreign direct investment

INV = gross domestic investment

HK = human capital (measured by mean years of schooling)

POP = population

INFL = inflation rate (a measure of macroeconomic stability)

EXRT = exchange rate (nominal)

XPORT = level of exports

POLDUMMY = political dummy, referring to political stability.

The final model, after taking natural logarithms for all variables, is shown below:

$$LPCY = \alpha_0 + \alpha_1 LAID + \alpha_2 LINV + \alpha_3 LHK + \alpha_4 LFDI + \alpha 6 LINFL + a_7 LXPORTS + u_1 \quad \text{....} \quad \textbf{(6)}$$

$$LAID = \beta_0 + \beta_1 LINV + \beta_3 LPOP + \beta_4 LINFL + \beta_5 LXPORT + \beta_7 POLDUMMY + u_2 \quad \text{.....} \quad \textbf{(7)}$$

$$LINV = \varphi_0 + \varphi_1 LAID + \varphi_4 LFDI + \varphi_5 EXRT + \varphi_6 LINFL + \varphi_8 POLDUMMY + u_3 \quad \text{.....} \quad \textbf{(8)}$$

Where: U1, U2 and U3 are stochastic error terms, and, L stands for natural logarithm.

5.5 Estimation Methodology.

In this system of equations, there are a total of 10 variables. Three of them are endogenous variables; GDP per capita (LPCY), foreign aid (AID) and gross domestic investment (INV) and seven exogenous variables; FDI (foreign direct investment), HK (human capital, measured by mean years of schooling), XPORT (level of exports), INFL (inflation rate), EXRT (nominal exchange rate), POP (population), and POLDUMMY (political dummy).

As shown in appendix 1, all the equations are identified. They all satisfy the ORDER condition (the necessary condition) of identification. Indeed, each of the three equations is over-identified. They also satisfy the RANK condition (the necessary and sufficient condition) of identification.

Since all the equations are over-identified, they can be suitably estimated by two-stage least squares (2SLS) and three-stage least squares (3SLS). In this analysis, 3SLS

estimators are employed, using the STATA software. Since they are all double-log equations, the coefficient estimates obtained are interpretable as elasticities. Although econometric results were obtained for both estimators, only the 3SLS results are reported in Appendix 2. After estimation, the coefficients of the 3SLS results were obtained. These can be interpreted as elasticity multiplier coefficients and give us the change in an endogenous variable for a given change in any exogenous variable. (Adamu, 2013).

5.6 Data.

The data is a time series of the years 1995-2013 obtained from the (PCBS, 2015) and the (World Bank, 2015) and is shown in Appendix 3. The reason for dropping 1994 and 2014, is the unavailability of all the data needed in the time series.

The data for per capita GDP, investment, population growth, inflation, exchange rate, and export were obtained from the Palestinian Central Bureau of Statistics (PCBS, 2015), while the data for aid, and FDI were obtained from the (World Bank, 2015).

Political stability indicator was 1 for the years 2001, 2002, 2003 and 2006. The first three years witnessed the most violent clashes and closures in the PA history, while 2006 witnessed the complete hold of aid and revenues collected by Israel on behalf of the PA.

5.7 Presentation and interpretation of empirical results.

In the following Table 5.1., we present the main results for the 3SLS regressions of the PA data.

Table 5-1 3SLS results for Palestinian Territories (West Bank and GAZA)

Three-stage least-squares regression

Equation	Obs	Parms	RMSE	"R-sq"	chi2	P
lnPCY	19	7	.0192836	0.9741	730.91	0.0000
lnAid	19	5	.1500446	0.9344	273.09	0.0000
LnINV	19	5	.133081	0.5125	24.09	0.0002

	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
lnPCY						
lnAid	-.1009495	.0176778	-5.71	0.000	-.1355973	-.0663017
LnINV	.25535	.0618049	4.13	0.000	.1342145	.3764854
lnHK	.1620557	.1264581	1.28	0.200	-.0857976	.4099091
lnFDI	.0220052	.0103327	2.13	0.033	.0017535	.0422569
lnXPORT	.2033191	.0349259	5.82	0.000	.1348657	.2717726
LnINF	-.0133768	.0101511	-1.32	0.188	-.0332725	.006519
POLDUMMY	-.0056431	.0192252	-0.29	0.769	-.0433237	.0320376
_cons	4.329413	.3512722	12.32	0.000	3.640933	5.017894
lnAid						
LnINV	-.5397631	.3566988	-1.51	0.130	-1.23888	.1593537
lnPOP	3.34921	.5195289	6.45	0.000	2.330952	4.367468
LnINF	.0652613	.0766146	0.85	0.394	-.0849006	.2154232
lnXPORT	.1991246	.246862	0.81	0.420	-.2847161	.6829653
POLDUMMY	-.0121127	.1207206	-0.10	0.920	-.2487206	.2244953
_cons	-40.5842	7.612834	-5.33	0.000	-55.50508	-25.66332
LnINV						
lnAid	.0646301	.0545476	1.18	0.236	-.0422812	.1715415
lnFDI	.1761583	.0492902	3.57	0.000	.0795514	.2727653
lnEXRT	.6955669	.3589485	1.94	0.053	-.0079592	1.399093
LnINF	.0191586	.0615008	0.31	0.755	-.1013808	.1396981
POLDUMMY	.0260995	.1142423	0.23	0.819	-.1978113	.2500102
_cons	5.002996	.7074122	7.07	0.000	3.616493	6.389498

Endogenous variables: lnPCY lnAid LnINV
Exogenous variables: lnHK lnFDI lnXPORT LnINF POLDUMMY lnPOP lnEXRT

5.7.1 LPCY: The equation explaining economic growth.

With an R^2 over 97%, the model explains 97% of the variation of the dependent variables in the equation. And with a P-value of 0.00, the equation is significant at the 1% level. This means that the hypothesis of a significant linear relationship between the economic

growth and the six repressors in the equation cannot be rejected at the 1% level of significance.

Analysis of the empirical results obtained in the equation show:

- **Foreign Aid:** Economic growth in the PA controlled areas depends negatively on foreign aid. This result goes in line with some theories on foreign aid, where the impact of aid is still ambiguous and depends on several factors. For example, (Djankov, Garcia-Montalvo, & Reynal-Querol, n.d.) suggested that aid has a negative impact on economic growth, and (Nowak-Lehmann, Dreher, Herzer, Klasen, & Martínez-Zarzoso, 2012) found that aid was insignificant or has a small negative impact on per capita income, especially in aid-dependent countries. This result disagrees, however, with (Adamu, 2013) results, were she found that aid affects Per capita GDP in the ECOWAS countries positively. Overall, therefore, it is suggested that aid affects each country differently.

  In the PA controlled areas, this result means that increasing foreign aid will have a negative influence on the per capita real GDP. This result can be explained by the consumption nature of the Palestinian economy. After the year 2000, most of the aid was targeting the PA employees' salaries, social security and UN welfare programmes, and hence going into consumption. If aid to the PA is increased, and no change were made to how it is spent, then we would expect the PA's Per Capita GDP to decrease. This result also goes in line with the descriptive analysis discussed in chapters 4 and 5, where investment was decreasing when aid was increasing. It is obvious now that most of the aid to the Palestinian Authority went into consumption, and very little was pumped into investment. This situation, in addition to the political instability, forced investment to decrease when aid was increasing. The P-value for aid was 0.00, thus it is considered to be statistically significant at the 1% level. The hypothesis that foreign aid is unable to drive sustainable positive growth to the PA controlled areas economy is therefore validated, and our first research question is answered. The elasticity of aid with respect to the per capita real income is approximately 0.1; this means that a 10% increase in foreign aid to the PA would result in an average drop of 1% in the per capita real income.

- **Investment:** Economic growth in the PA controlled areas depends positively on investment. This result goes in line with the theory (Phetsavong, Kongphet, & ICHIHASHI, 2012), with investment promoting employment and hence boosting the per capita real income. The P-value for investment was 0.00, thus it is considered to be statistically significant at the 1% level. This result answers our second research question that investment contributes positively to economic growth in the PA controlled areas. The elasticity of investment with respect to the per capita real GDP is approximately 0.26, which means that a 10% increase in investment would result in an average increase of 2.6% in the per capita real GDP: a major effect. These results are in line with many Palestinian economists who have called for government policies that promote investment rather than consumption, as PA policies encourage the banks to give personal loans, rather than private sector loans (Alkarim, et al., 2005; Alqomsan, 2005 and Eideh, 2014).
- **Exports:** exports affect the economic growth in the PA controlled areas positively, with an elasticity of 0.20 with respect to the per capita real GDP. The P-value for exports was 0.00, thus it is considered to be statistically significant at the 1% level. The hypothesis that exports contribute positively to economic growth in the PA controlled areas is therefore validated. This result reveals a further major effect on the GDP per capita of the PA controlled areas. A 10% increase in export means that the per capita real income will increase by 2.0%. This result goes in line with theory of Cuaresma & Wörz, (2005); Lee & Hung (2002) and KILAVUZ & Betel (2012).

  In fact, and from a growth theory point of view, exports are the key factor in promoting economic growth; they have a stimulating effect on total production as well as having an important effect on the relaxation of foreign exchange constraints. Also exports will put pressure on the export oriented industry to reduce costs and invest in technology in order to insure an efficient price mechanism (Morrissey, 2001 and Kang et al. 2013).

- **Foreign Direct Investment (FDI):** Economic growth in the PA controlled areas depends positively on FDI. This result goes in line with some of the theory (Phetsavong, Kongphet, & ICHIHASHI, 2012) with FDI bringing foreign currency in, as well as promoting employment and hence boosting the per capita real income. Other

economists relate the positive impact of FDI to the level of technology in place, the level of labour skills in place as well as the level of education (Alfaro et al. 2010). The P-value for FDI was 0.033, thus it is considered to be statistically significant at the 5% level. Therefore the hypothesis that investment contributes positively to the economic growth in the PA controlled areas is validated. The elasticity of FDI with respect to the per capita real income is approximately 0.02. This means that a 10% increase in investment would result in an average increase of 0.2% in the per capita real income, a minor but still important effect. If some of the aid can be directed into investment in the infra-structure, or directed towards the private sector, through soft loans, or partnership, the effect of aid might change its sign and the positive effect of FDI might increase.

- **Human capital:** Although, economic growth in the PA controlled areas depends positively on human capital this cannot be validated, with a P-value of 0.2. Human capital is considered to be insignificant even at the 10% level. Hence judging by this equation, the hypothesis that human capital drives economic growth in the PA controlled areas is not supported. This might be attributed to the strong positive effect of both investment and export which may have dominated the contribution of human capital.
- **Inflation:** Although, economic growth in the PA controlled areas depends negatively on inflation, and this goes in line with theory, this result cannot be validated, with a P-value of 0.188, inflation is considered insignificant even at the 10% level.

5.7.2 LnAID: The equation explaining foreign aid.

With an R^2 of approximately 93.4%, this equation explains 93.4% of the variation of dependent variables; and with a P-value of 0.00, the equation is significant at the 1% level. This means that the hypothesis of a significant linear relationship between economic growth and the five repressors in the equation cannot be rejected at the 1% level of significance.

Analysing the empirical results obtained in the equation show that only population is significantly different from zero at the 1% level. It was found that there is a positive

relationship between foreign aid and population in the PA controlled area, this positive relationship comes in line with theory. The population growth variable is positively signed with a P-value of 0.00. The elasticity of population with respect to the foreign aid is approximately +3.35, this means that a 10% increase in population would result in an average increase of 33.51% in foreign aid to the PA controlled areas, this accords with the consumption nature of the PA economy, since as the population increases the aid increases to meet the demand for consumption and avoid an increase in poverty. Exports are also positively related to aid, with a coefficient of 0.2 and a P-value of 0.42, which makes it statistically insignificant even at 10% level.

Investment is negatively signed but insignificant with a P-value of 0.354, inflation is positively signed but insignificant with a P-value of 0.755, which makes it meaningless. The sign of inflation contradicts theory and should be negative, but with a P-value of 0.394 it has no meaning.

5.7.3 LnInv: The equation explaining investment.

An R^2 of approximately 51% means that using the selected repressors we are able to explain approximately 51% of the variations in aggregate investment during the timespan of the data; and with a P-value of 0.0002, the equation is significant at the 1% level. This means that the hypothesis of a significant linear relationship between economic growth and the six repressors in the equation cannot be rejected at the 1% level of significance.

- **Exchange rate**: Exchange rate is positively related to investment, which goes in line with theory. The P-value is 0.053, which means that the repressor is significant at the 10% level. The elasticity of exchange rate with respect to investment is approximately 0.7. This means that a 10% increase in exchange rate would result in an average increase of 7% in investment in the PA controlled areas. It is important to note here that the PA has no control over the exchange rate since it does not have its own currency. This draws our attention to the need for the PA to have its own currency, in order to be able to use monetary policy in the future. It is also important to note, that issuing a Palestinian currency needs

extended consideration for the associated requirements and implications, and no automatic decision should be taken.

- **FDI**: FDI is also positively related to investment in the PA controlled areas, and is statistically significant at the 1% level, with a P-value of 0.00. The elasticity of FDI is 0.176, which means that an increase in FDI by 10% will result in an increase in investment by 1.76%. This value shows the moderate impact of FDI on investment. This result goes along with economic theory, although Alfaro et al. (2006), recommended that for FDI to have a more pronounced effect on growth, goods produced by domestic firms must be substitute goods rather than complements. This will help in the reduction in imports and hence an improvement in the trade deficit.
- **Other variables**: All other variables in the equation, including, aid, inflation and the political dummy are all statistically insignificant with P-values of 0.236, 0.755 and 0.819 respectively.

5.8 Summary and Conclusions of the Chapter.

Based on the empirical findings, aid is significantly and negatively related to economic growth in the PA controlled areas. This result is consistent with some previous studies, (Boone, 1996) that see foreign aid as a negative driver for economic growth for various reasons. Although the PA's macroeconomic policies are considered to be good policies by the World Bank and the donor community (World Bank, 2013), aid still had a negative impact on the economy. Good policies are identified by some economists in respect to monetary, fiscal and trade policies (Burnside & Dollar, 2000). In the Palestinian case, the PA has no power over its monetary policies, since it has no local currency, nor power to decide on interest rates; also trade policies are defined by Israel as per the Paris protocol, leaving the PA unable to decide on customs duty, VAT, petrol and tobacco taxes, or any other indirect taxes. Furthermore, the PA is unable to take any decisions or implement agreements with other countries on exports; and in respect to fiscal policies, the PA has a huge budget deficit, which makes all its fiscal policies subject to the approval of the World Bank and donor community. In other words, the PA

has no real economic policies to be discussed, since most of the policy decisions are taken over by Israel or by the World Bank donors.

In the Palestinian case, and after the year 2000, most of the aid was directed towards consumption, through employees' salaries and social help to Palestinians living in poverty. With the exception of the period of hope (1994-1999), very little aid has been directed towards capital spending or private sector investment, and after 2009, donor countries started to reduce the aid provided to the PA, while helping the PA's Ministry of Finance, to set up procedures to assist them in increasing tax collection with the aim of replacing the monies lost in aid. Collection was never capable of completely replacing foreign aid, however, given the continuous Israel occupational measures, and this means that the PA will continue to be aid dependent assuming the same economic and political measures are in place. Furthermore, if aid were to be reduced at the same rate as in the past few years, then the PA will not be able to adopt the same fiscal policies, and cuts will have to be introduced, which might affect the quality of education and health, which is already in a bad situation.

The empirical results also show that exports, investment and FDI are significant and exhibit a positive impact on economic growth in the PA controlled areas. Investment leads the way in being the major driver of economic growth, followed by exports and, to a lesser extent, FDI. So, the question is how to use aid in a way to make a positive impact on growth using the positive relationship of investment, exports and FDI, and at the same time to urge the donor's countries not to reduce aid as they have done in the last few years, but rather change the way it is spent. The aid to budget should be directed instead to investment in infrastructure, and into special funds that will serve soft loans to the private sector. According to (Khan, 1996) and (Phetsavong, Kongphet, & ICHIHASHI, 2012), the priority in investment must be given to private sector investment, as this has the strongest and fastest effect on economic growth, with FDI coming second and public investment coming last.

It must be noted that international reserves, currency interest rate and national domestic savings were omitted from the original model of (Adamu 2013), either due to their having negative values or since the data does not exist for the PA. This has denied the PA

some powerful drivers of economic growth. Negative or limited national savings mean that capital for investment is not available. Domestic savings will continue to be negative as long as consumption is greater than the GDP. One method of increasing the GDP without reducing the consumption, is through investment in the production of tangible goods, both in the industrial and agriculture sectors. This will lead to a reduction in imports and an increase in exports, boosting the GDP and reducing the consumption / GDP ratio. Such a policy would increase domestic savings and reduce the trade balance, helping to reduce the savings and foreign exchange gaps. Accordingly, increasing investment should be one of the most important steps that the PA, and the donor community, should work to achieve.

Also the lack of a Palestinian currency, and the dependency on the Israeli Shekel, prevents the PA from using monetary policies, especially interest rates. The Palestinians borrow in three different currencies with high interest rates decided by banks without the PA being able to influence this.

Although foreign aid had a negative impact on the Palestinian economy, it is still needed to cover the fiscal and saving-investment gaps, with personal remittances helping in covering the foreign exchange gap. Aid should change its direction, but it must not stop or be reduced.

It can also be concluded that special attention should be given to FDI, through a set of incentives, and reduction of bureaucracy in the PA. The PA has an investment incentive programme in place, but this programme is not coordinated with the PA's ministries, leaving investors frustrated with the high level of bureaucracy and corruption in the PA system. (Hasneen, 2013)

Although political stability is a major factor in attracting investment and improving economic growth, it was found that the political stability dummy variable in the empirical model was statistically insignificant. This could be a result of the dominant nature of both exports and investment in the model. This result contradicts earlier assumption that Political stability is a major factor, and hence needs more investigation. But, it is worth noting in here that aid has always increased during political instability, and hence covering up for losses due to this factor.

Based on the above discussion, although aid is negatively related to per capita GDP, it should continue to flow since any sudden stoppage or huge reduction will result in an economic, political and social disaster. The PA is now an aid dependent entity, but donors must look for alternative ways of spending aid, keeping some for budget support and some for investment.

The PA must also give special attention to promote investment in export driven industries, through local investment and FDI. This can be done by improving the laws and regulations that control the establishment of new projects.

More importantly, however, is the need for the relaxation of Israeli control over the Palestinian economy, especially on the borders and in area C.

One question that remains to be answered here is whether the PA is stuck in a poverty trap and is too poor to grow, as per (Sach et al., 2004). To answer this question one more layer must be discussed: democracy and corruption. (Boone, 1996) warned donor countries to watch out for the effects of aid on both democracy and corruption, suggesting that aid encourages governments to spend and consume rather than invest and fulfil their democratic obligations towards their people, thereby establishing corrupt centres of power.

Many journalists, researchers and politicians have suggested that the PA is now an undemocratic corrupted entity, with aid helping in the promotion of both diseases. This needs further investigation, as it is outside the scope of this current research.

6. Chapter 6: A Plan for the Palestinian Economy.

This thesis has discussed the effect of foreign aid on the economy of the Palestinian Authority controlled areas, both in a descriptive and regression analysis. We concluded that aid had a negative effect on the per capita GDP, but at the same time that it helped in financing the fiscal and, partially, the foreign exchange gap. We have also proved that investment, exports and FDI are positively related to per capita GDP.

This chapter will list a number of recommendations that will make aid more effective in helping the Palestinian economy to be self-sufficient in the long run. This chapter will also give recommendations on further research that is needed.

6.1 Recommendations at the economic level.

- Despite the fact that foreign aid is negatively associated with the per capita GDP, it has to continue its flow to the Palestinian Authority, including aid to the budget, since without that aid the PA will not be able to function and its existence will be threatened. Foreign aid should be spent more wisely, however, and more aid should be allocated to investment. Development spending in the budget dropped to around 6% in the last eight years, and to less than 5% in the last three years. The donor community must put pressure on the PA to allocate more money for development at the expense of current spending. This cannot be done through aid reduction, but rather through a different distribution of aid across the budget items.
- The trend towards lower levels of aid that has been evident over the last five years of the study should stop, and aid levels should go up to the levels of 2009 and 2008. This aid needs to be used differently, however, specifically to target investment and development projects. In other words, aid spending should be shifted from consumption to investment.
- Aid to development should target the private sector rather than government development projects (most government development expenditure was in building

new offices for the PA, with almost zero expenditure on the infrastructure). When aid targets the private sector it will have a positive effect on exports, making a multiple impact on growth. Aid to the private sector could impact the per capita GDP faster and stronger. This point must be investigated further in future research.

- More emphasis should be given to the microfinance industry, since over 90% of Palestinian establishments employs five workers or less. PCBS, (2012). This should run in parallel with the PA investment incentive programme, which should be targeted at medium and large investment. The PA must also set up a new strategy, and work to implement it concentrating more on micro and small enterprises, especially small land owners and small manufacturers.
- The PA needs to develop an economic strategy aimed at reducing the trade deficit. This policy should be based on promoting investment, especially in export products and products for consumption that will replace imported ones. This again needs a new investment policy including the provision of funds for new investments.
- Special attention should be given to attract Foreign Direct Investment, especially in tourism and software industries, where there are no export procedures involved. The PA should design a dedicated programme to promote foreign investment.

6.1.1 Promotion of Investment.

Based on the above, the main economic recommendation is to transfer part of the aid given to the Palestinian people into investment. This should aim to increase investment in terms both of its absolute value and as a percentage of GDP. A model of increasing investment by a moderate 10% annually over a 10 years period was constructed and is shown in table A5.2 in appendix 5.

The discussion below will only show the effect of investment increase on GDP, not taking into account other factors such as the effect of exports and final consumption. When all the factors are working together, however, the increase in GDP will be much larger than what is shown below.

In order to show the effect of investment on GDP growth and job creation, more calculations were conducted that are based on the following:

- Table A5.1 in appendix 5, shows that an increase of 10% in investment in our PCY model equation, will result in a 2.1% increase in the per capita GDP.
- Labour productivity was calculated in Appendix 5 to be US$ 8,568 per labourer.

Based on those results we constructed table A.5.2, in order to calculate the impact of the 10% annual increase in investment on GDP growth as well as job creation. The detailed steps in creating table A5.2 are shown in Appendix 5. The results of table A5.2 can be summarized as follow:

1. The per capita GDP will increase by 23.1% over a 10 year period, reaching a current value of US$ 3,525. This is an annual increase of 2.3%, compared with an annual increase of less than 1% in the previous 21 years of the PA.
2. GDP will increase by 64% in 10 years, reaching a current value of US$ 20,763 billion. This is an annual increase of 6.4%. The importance of this increase is its sustainable nature, since it is based on investment rather than consumption.
3. Investment/GDP will increase from 21% in 2015 to 33.5% in 2020. This is higher than the average value of the MENA region by 3%.
4. A 10% annual increase in investment will result in the creation of around 940,000 new jobs, an average of 94,000 jobs annually.
5. The effect of job creation on the unemployment rate will be significant, leading to a reduction from 26% in 2015 to 11% in 2025, as shown in table A5.3 in appendix
6. Assuming that the tax collection/GDP ratio stays at the same level of around 20%, such an increase in investment will result in tax collection increasing by US$ 1 billion, 80% of which will be from customs duty and VAT, an average increase of US$ 200 million annually.

In order to achieve these results, and to manage investment wisely, we recommend the establishment of an investment fund that will lead the investment process and decide on the appropriate sectors for investment. Section 6.2 will explain how to establish this investment fund and describe its characteristics.

We also recommend the following sectors to invest in, showing the effect of each sector on the Palestinian economy.

Agriculture.

Agriculture in the West Bank and Gaza (PA controlled areas), has always been considered to be an important social and economic activity. Before 1967 it was the most important economic activity, but with time it started to lose its importance. In the years of direct occupation (1967-1994), most Palestinians left the land to work in Israel, and since then agriculture lost its importance, although a large portion of agricultural workers in Israel are Palestinians. The UNCTAD report on Palestinian agriculture of 2015 (UNCTAD, 2015) described the Palestinian economy as "*Over and above its traditional economic role, agriculture remains of great significance to the Palestinian people and their identity. Land and agriculture symbolize Palestinian resilience and perseverance in the face of ongoing land loss due to prolonged occupation and the expansion of Israeli settlements. The practical and symbolic importance of the agricultural sector is heightened even further by the fact that the key factors of agricultural production, land and water, are relatively scarce in the Occupied Palestinian Territory and the occupation has made the situation worse*." (Page i)

The share of GDP held by agricultural production dropped from 13.3% in 1994 to 3.6% in 2015. This has increased the Palestinian dependence on imports from Israel. We recommend increasing investment in this sector targeting an annual GDP increase of 10%.

Table 6.1 describes the effects of increasing investment in the agricultural sector by 10%, on GDP and jobs. It shows that an increase in investment in agriculture will increase the sector's share in GDP from US$ 450.1 million in 2015 to US$ 1,167 million in 2025, and its share of the GDP from 3.5% to 5.6%. It will also help in the creation of over 83 thousand new jobs. These results indicated the need for an investment of US$ 370.0 millions over 10 years. The investment in this sector must include cold storage facilities in order to counter the Israeli strategy of flooding the Palestinian market of seasonal

produce and then selling at high prices during the off season. Cold storage facilities will help Palestinian farmers become more competitive.

Table 6-1 Economic impact of investment in agriculture

Agriculture						
	GDP M$			**Investment M$**		**Created Jobs**
Year	**US$ M**	**% of GDP**	**Increase**	**Needed**	**% increase**	
2015	**450**	**3.6%**				
2016	495	3.7%	45	23		5,252
2017	545	3.9%	50	26	10%	5,777
2018	599	4.1%	54	28	10%	6,355
2019	659	4.3%	60	31	10%	6,990
2020	725	4.5%	66	34	10%	7,690
2021	797	4.7%	72	37	10%	8,458
2022	877	4.9%	80	41	10%	9,304
2023	965	5.1%	88	45	10%	10,235
2024	1,061	5.4%	96	50	10%	11,258
2025	1,167	5.6%	106	55	10%	12,384
Total			**717**	**370**		**83,704**

Manufacturing.

Food processing, stones and marbles and dairy processing, the pharmaceutical sector, handcrafts, leather and shoes, and the textile and furniture industries, were successful industries in the 1980's and 1990's, with some of these industries still efficient and successful. Such industries provide the basis for a good economy.

Table 6-2 Economic impact of investment in manufacturing

Manufacturing						
	GDP M$			**Investment M$**		**Created Jobs**
Year	**US$ M**	**% of GDP**	**Increase**	**Needed**	**% increase**	
2015	**1,656.7**	**13.07%**				
2016	1,822.4	13.69%	165.7	85.4		19,331.4
2017	2,004.6	14.33%	182.2	93.9	10%	21,264.5
2018	2,205.1	15.00%	200.5	103.3	10%	23,391.0
2019	2,425.6	15.71%	220.5	113.7	10%	25,730.1
2020	2,668.1	16.45%	242.6	125.0	10%	28,303.1

Manufacturing						
2021	2,934.9	17.22%	266.8	137.5	10%	31,133.4
2022	3,228.4	18.03%	293.5	151.3	10%	34,246.7
2023	3,551.3	18.88%	322.8	166.4	10%	37,671.4
2024	3,906.4	19.77%	355.1	183.1	10%	41,438.5
2025	4,297.1	20.70%	390.6	201.4	10%	45,582.4
Total			**2,640**	**1,361**		**308,093**

Hence, manufacturing as a successful story in Palestine and still can be. After the PA assumed control over the West Bank and Gaza, the role of industry and manufacturing started to decline.

Manufacturing's share of GDP decreased during the life span of the PA, from 18.8% in 1994 to 13.1% in 2015. This continuous reduction contributed to the increase in the PA's trade deficit, and promoted imports from Israel and other parts of the world. We recommend increasing investment in this sector by 10% annually.

Table 6.2 shows that increased investment of US$ 1,360 million will result in an increase of over US$ 2,600 million in GDP. Manufacturing's share of the GDP will increase from 13.1% in 2015 to 20.7% in 2025, resulting in the creation of over 308,000 new jobs. Further studies are needed, however, to decide in which fields of manufacturing to invest in. But, food processing and furniture are two possible sectors.

Tourism.

Palestine is considered to be one of the holiest places for the religions of Judaism, Christianity and Islam, and contains the holiest sites for all three religions. It also has some of the best Mediterranean weather of the region. Now, with some political stability coming back to Palestine, investment in this sector could be very promising.

Tourism's share of GDP was 12% in 2015, a total of US$ 150 million. Tourism is a promising sector with some important historical and religious sites. We recommend increasing investment in this sector by 15%.

Table 6.3 shows that an investment of US$ 236 million in tourism over 10 years, will lead to an increase in GDP by US$ 457 and the creation of over 53,000 jobs. This will also increase tourism's GDP contribution from 1.2% in 2015 to 2.9% in 2025.

Table 6-3 Economic impact of tourism investment

Tourism						
	GDP M$			**Investment M$**		**Created Jobs**
Year	**US$ M**	**% of GDP**	**Increase**	**Needed**	**% increase**	
2015	**150.1**	**1.18%**				
2016	172.6	**1.30%**	22.5	11.6		2,627.2
2017	198.5	**1.42%**	25.9	13.3	15%	3,021.3
2018	228.3	**1.55%**	29.8	15.3	15%	3,474.5
2019	262.5	**1.70%**	34.2	17.7	15%	3,995.6
2020	301.9	**1.86%**	39.4	20.3	15%	4,595.0
2021	347.2	**2.04%**	45.3	23.3	15%	5,284.2
2022	399.3	**2.23%**	52.1	26.8	15%	6,076.8
2023	459.2	**2.44%**	59.9	30.9	15%	6,988.4
2024	528.0	**2.67%**	68.9	35.5	15%	8,036.6
2025	607.2	**2.92%**	79.2	40.8	15%	9,242.1
Total			**457**	**236**		**53,342**

Education Investment.

Investment in education is a rather tricky subject. This is because of the multiple sectors it has, with different sectors of economy requiring different types of education. A recent study (Hilal, 2015), indicates an increase in demand by 19% annually compared to the base years of 2012, this is some 18,000 annual graduates. Also, Israel is importing a large number of Palestinian skilled workers every year which increases the need for this type of education even more (vocational and technical education). The same study indicated that around 90% of vocational training graduates are employed, compared with 40-45% in other educational systems (mainly academic). It was also estimated by the same researcher that the annual average cost per vocational student is in the range of US$ 3,700.

The PA spends 19.2% of its budget on education, but only 0.3% on vocational training, compared with an average among OECD of 6.1% and 7% in Israel. This shows the high importance of investment on education, especially vocational training. We recommend that investment in education should increase such that education's share of GDP will almost double in ten years.

Table 6-4 Economic impact of investment in education

Education						
	GDP M$			**Investment M$**		**Created Jobs**
Year	**US$ M**	**% of GDP**	**Increase**	**Needed**	**% increase**	
2015	**967.1**	**7.63%**				
2016	1,063.8	**7.99%**	96.7	49.9		11,284.7
2017	1,170.2	**8.37%**	106.4	54.8	10%	12,413.2
2018	1,287.2	**8.76%**	117.0	60.3	10%	13,654.5
2019	1,415.9	**9.17%**	128.7	66.4	10%	15,020.0
2020	1,557.5	**9.60%**	141.6	73.0	10%	16,521.9
2021	1,713.3	**10.05%**	155.8	80.3	10%	18,174.1
2022	1,884.6	**10.53%**	171.3	88.3	10%	19,991.6
2023	2,073.1	**11.02%**	188.5	97.1	10%	21,990.7
2024	2,280.4	**11.54%**	207.3	106.9	10%	24,189.8
2025	2,508.4	**12.08%**	228.0	117.5	10%	26,608.8
Total			**1,541**	**794**		**179,849**

Table 6.4 shows that, a 10% increase in investment will need a total investment of US$ 794 million in ten years. We suggest a good share of investment in education should be in the vocational and technical training, in order to double the number of vocational system graduates, from 10,000 per year to 20,000 in order to meet the market demand. This means that 35% of the investment on education should go to the vocational and technical sector. Such investment in education will lead to an increase in education's share of GDP from 7.64% in 2015 to 12.1% in 2025. The number of jobs created as a result should be around 180,000 jobs.

Investment in other productive sectors.

Other productive sectors accounted for US$ 5,630 million in 2015, some 44.5% of GDP. Such activities can be summarised in construction, transportation, storage, wholesale and retail sale, Financial and insurance services, information and communication services, real estate and arts and entertainment.

We recommend an increase in investment by only 3.5%, in order to accommodate for the sharper increase in the other sectors. This will lead to a drop in its share of the GDP from 53.3% in 2015 to 45.9% in 2015, and the creation of some 323,000 new jobs.

Table 6-5 Economic impact of investment in other productive sectors

Other Productive Sectors						
	GDP M$			**Investment M$**		**Created Jobs**
Year	**US$ M**	**% of GDP**	**Increase**	**Needed**	**% increase**	
2015	**6,756.2**	**53.31%**				
2016	6,992.7	**52.52%**	236.5	121.9		27,592.4
2017	7,237.4	**51.74%**	244.7	126.2	3.5%	28,558.1
2018	7,490.7	**50.97%**	253.3	130.6	3.5%	29,557.7
2019	7,752.9	**50.21%**	262.2	135.1	3.5%	30,592.2
2020	8,024.2	**49.47%**	271.4	139.9	3.5%	31,662.9
2021	8,305.1	**48.73%**	280.8	144.8	3.5%	32,771.1
2022	8,595.8	**48.01%**	290.7	149.8	3.5%	33,918.1
2023	8,896.6	**47.30%**	300.9	155.1	3.5%	35,105.3
2024	9,208.0	**46.59%**	311.4	160.5	3.5%	36,333.9
2025	9,530.3	**45.90%**	322.3	166.1	3.5%	37,605.6
Total			**2,774**	**1,430**		**323,697**

Public administration and defence.

Public administration and defence's share of GDP is rather high and has continually increased from US$ 272.7 million in 1994 to US$ 1,941 million in 2015 (9.6% of GDP to 15.4%). We recommend reducing its share of GDP to less than 9% (similar to its 1994 value). In order to achieve that, we recommend reducing public and defence spending by 2% annually, which will reduce its share of the GDP from 15.3% in 2015 to 7.6% in

2025. This will save some US$ 183 million, and lead to the loss of around 41,000 jobs. This suggested 2% reduction was based on the high number of military employees, both in Gaza and the West Bank, especially those military employees in Gaza who are not allowed to work by Hamas.

This step is necessary in order to increase the efficiency of the PA, as it is well known that the increase in the number of public employees was one of the methods used by the government to reduce unemployment, as discussed in the previous chapters. This will also help improve the budget deficit of the PA.

Table 6-6 Public administration and defence

Public Administration and defence						
	GDP M$			**Investment M$**		**Created Jobs**
Year	**US$ M**	**% of GDP**	**Increase**	**Needed**	**% increase**	
2015	**1,940.8**	**15.3%**				
2016	1,902.0	**14.3%**	-38.8	-20.0		-4,529.3
2017	1,863.9	**13.3%**	-38.0	-19.6	-2.0%	-4,438.7
2018	1,826.7	**12.4%**	-37.3	-19.2	-2.0%	-4,349.9
2019	1,790.1	**11.6%**	-36.5	-18.8	-2.0%	-4,262.9
2020	1,754.3	**10.8%**	-35.8	-18.5	-2.0%	-4,177.7
2021	1,719.2	**10.1%**	-35.1	-18.1	-2.0%	-4,094.1
2022	1,684.9	**9.4%**	-34.4	-17.7	-2.0%	-4,012.2
2023	1,651.2	**8.8%**	-33.7	-17.4	-2.0%	-3,932.0
2024	1,618.1	**8.2%**	-33.0	-17.0	-2.0%	-3,853.4
2025	1,585.8	**7.6%**	-32.4	-16.7	-2.0%	-3,776.3
Total			**-355**	**-183**		**-41,426**

VAT and customs duty.

The share of GDP accounted for by VAT and customs duty was 16% (some, US$ 2,024 million). We recommend leaving this percentage unchanged since the overall increase in GDP arising from the other proposed measures will lead to an increase in tax collection. The increase in GDP over the 10 years will be in the range of US$ 8.1 billion, as shown

in table 6.7. Such an increase will result in an increase in VAT and customs duty of US$ 1,302 million in 10 years.

Table 6-7 Summary of the investment recommendations for 10 years

		Agriculture	Manufacturing	Tourisem	Education	Other Sectors	Total
GDP M$	2015	450	1,657	150	967	6,756	**11,995**
	2025	1,167	4,297	607	2,508	9,530	**20,135**
	GDP Increase	717	2,640	457	1,541	2,774	**8,140**
	Annual Growth	16%	16%	30%	16%	4%	**6.8%**
	Jobs Created	83,704	308,093	53,342	179,849	323,697	**948,685**
	Investment M$	370	1,361	303	794	1,430	**4,258**

The results of our recommendations to increase investment by 10% can be summarized by looking at tables 6.7, A5.2 and A5.3. The following is a summary of those results:

1. The total investment fund needed for the 10 years is around US$ 4.3 billion as shown in table 6.7. This amount is not needed immediately, with less than half of this needed in the first five years. Hence, the fund can be established with a capital of US$ 4 billion, and only an initial US 1B$ pumped in the first two years.
2. The increase in investment by just over US$ 4 billion in 10 years, will result in an increase of US$ 662 in the per capita GDP, this is an increase of 23.1%, more than the per capita GDP increase across the whole of the previous 21 years of the PA.
3. The increase in GDP over the 10 years period is estimated to be around US$ 8.1 billion, an increase of 63.8%.
4. As a result of that increase in GDP, more than 900,000 jobs will be created in 10 years, reducing the unemployment rate from 26% in 2015 to 11% in 2025.

6.1.2 Recommendations at the institutional level.

- Investment development fund:

An investment development fund must be established for Palestine, with all development aid invested in this. The main purpose of the fund is to plan and recommend the distribution of funds, monitor and evaluate the distribution of funds to private sector establishments and ensure their use in agreed-upon investment projects. Distribution and collection should go through the well-established banking system. Interest rates for such soft loans must not exceed 1% in addition to a 1% service charge. This fund must be a revolving fund, in order to guarantee its continuous nature. The fund must have a board of directors consisting of representatives from donor countries, the PA and the private sector. Part of the board of director's responsibilities will be to decide on the different fields in which the funds should be spent, including, but not limited to, infrastructure and private sector investment. It is preferable that the fund's spending should be mainly in soft loans and not in grants, including soft loans to the PA, but only to development projects, especially in respect to infrastructure. Soft loans rather than grants, will ensure the continuity nature of the fund. This fund's responsibilities are different from those of the Palestinian recovery and development programme trust fund, established in 2008, which was established for the purpose of monitoring and reducing the transaction costs of budget support. The fund should focus on the private sector, and in particular on productive labour intensive industries, including agriculture, manufacturing and tourism. Special attention should also be given to education, especially technical and vocational training.

The fund's capital should come from the donor countries, those countries should pump a US$ 1 billion, in the first three years, as seed capital for the fund, without deducting them from aid targeting the PA. In the following years the donors countries will allocate 15% of aid designated to the PA to this fund. This means that the donor countries should change their strategy of aid reduction to aid stabilization. Accordingly donors will not have additional obligations, but rather change the purpose of aid spending. The increase in investment will improve the economy and hence improve PA tax collection. The PA

should substitute aid reduction by collection increase from a stronger Palestinian economy.

- PA investment rules.

The PA should make serious reforms on the procedures of new projects establishment, in order to simplify and fasten the establishment and registration of new projects, especially in the industry. The investment promotion program the PA has, is not enough to promote investment, but what is really needed is easy and fast procedures for new businesses establishment and a reduction in bureaucratic procedures.

6.2 Recommendations on the Political level.

The most straightforward and sensible recommendation is the end of occupation, and hence the establishment of a free Palestinian state that is capable of controlling its borders and ensuring the free movement of people and goods, as well as being able to set up its economic, fiscal and monitory policies. Since this is not possible to implement in the short and maybe medium term, we will make the following recommendations that are difficult but, more feasible, if some pressure were to be exerted on politicians, especially Israelis:

- The Paris Protocol, regulating the economic relations between Israel and the PA was designed to last for five years only. This agreement must be amended, or a new agreement must be reached in order to take care of the fast-changing economic conditions within the PA controlled areas, and between the PA and the rest of the world, including between the PA and Israel. Such changes should include, giving the PA control over customs clearance, including the development of a Palestinian tariff book, as well as the direct collection of customs duty and VAT, without the interference of Israel. It should also include the goods in transit agreement and the establishment of a Palestinian dry port.

- The relaxation of restrictions imposed by Israel on the movement of people and goods, both inside the West Bank, between the West Bank and Gaza and between the PA controlled areas and the rest of the world.
- Pressure must be put on Israel to allow the Palestinians to build, invest in and use the natural resources in area C. Such measures will help the PA economy and improve the living standard of the Palestinians citizens. Such improvement will help in reducing tension and create a better atmosphere for peace.

6.3 Recommendations for further work.

- It has been proven in this research that there is a positive impact of investment on the per capita GDP. Investment can be broken into three categories, private sector investment, public sector investment and FDI. More research is needed to monitor the effect of each component, so that stronger emphasis is put on the components that have the most impact on per capita GDP. While the literature is strongly behind private sector investment, this needs to be proven in the Palestinian case.
- Remittances have a strong impact on the PA economy, but further studies must be conducted to test if the increase in the number of people working in Israel promotes the symptoms of the "Dutch Disease" and the effect of such symptoms on the Palestinian economy.
- There is strong evidence of corruption at the top level of the PA, and strong signs of a lack of democracy in the PA controlled areas. Research is needed on the relationship between aid and corruption and aid and democracy. Some literature argues that there are clear positive links between corruption, lack of democracy and foreign aid.

7. Chapter 7: Conclusions.

The main purpose of this research was to study the future of the Palestinian economy, especially monitoring the effects of ODA on the complex economy of the Palestinian Authority. An economy with a unique status; with trade facing high restrictions on the movement of goods and people, as well as lacking control over 60% of its territories, where most of its natural and agricultural resources are located; We are discussing an economy that does not have a local currency, and is denied the right to use any monetary policies. The only income to the PA is through taxes and customs duty collection, with no other local income. Such collection is only effective over 65% of the economy[13] In addition to all of the above, this thesis has discussed the economy of a very politically unstable country, where there is a war every six years on average. Based on that, aid to the Palestinian Authority is considered by many to be a political commitment rather than aid for development.

According to previous chapters, the high level of aid did not have a significant positive effect on the overall Palestinian economy, although it resulted in an economy that is highly dependent on aid.

Per capita GDP increased by 20% over the twenty-one years of the PA, slightly less than a 1% annual increase, with the price index increasing much more than this, resulting in a drop in the purchasing power of the Palestinians, and an increase in poverty, especially in Gaza.

Aid did not reflect itself positively on investment, with Gross Capital Formation (GCF) with respect to GDP reducing from 33.8% in 1994 to 20% in 2014. This drop in investment was reflected across all productive components of the economy, with agriculture's share in the GDP dropped from 11.7% in 1994 to 3.8% in 2014. Also the share of GDP held by manufacturing reduced from 22.9% in 1994 to 14.8% in 2014. The same scenario repeated itself with services, whose share of GDP dropped from 29.5% in 1994 to 20.8% in 2014. Trade and wholesale increased slightly over the period from

[13] 95% of the collection is from the West Bank, while only 50-56% of the spending is on the West Bank

15.5% in 1994 to 17.7% in 2014, but the main increase was in public administration and defence, which almost doubled, increasing from 7.3% in 1994 to 13% in 2014. This was due to the sharp increase in the number of public employees, increasing from 83,000 in 1997 to 153,000 in 2014. This increase was matched by an increase in customs and VAT collection, increasing from 5.7% in relation to GDP in 1995 to 13% in 2014, but this increase in collection was not enough to cover the increase in government current expenses, which increased from 22.9% relative to GDP in 1997 to 30.33% in 2013. This has resulted in an increase in the budget deficit. The budget deficit in relation to GDP increased from 1.46% in 1997 to 12.66% in 2013, with a notable zero deficit in 1999. The budget deficit was covered by aid, with aid to budget in relation to GDP increasing from 0.9% in 1997 to 11% in 2013.

Domestic savings to current GDP decreased from -17.1% in 1994 to -20.6% in 2014, reaching a minimum value of -36.6% in 2007.

The balance of payments deficit increased with time from US$ -990 million to US$ -2,291 million.

The above description of results supports the following conclusions:

GDP growth over the 21 years under study was 142%, an annual average of 6.8%. Although, this is considered by all standards a sizable increase, it was led by an increase in consumption. Final consumption during the same period was 139%. This means that the growth in GDP was entirely driven by the growth in consumption, and shows that the Palestinian economy is a consumption led economy.

Gross capital formation, meanwhile, grew by only 35.9% over the period, an average of 1.7% annually, this increase did not match the annual increase in GDP, resulting in a drop of GCF relative to GDP from 32.5% in 1994 to 22% in 2014. This shows that investment is not affected positively by aid. It is strongly noted by theory that investment is a main driver of sustainable growth, and the fact that the PA's economy shows a reduction in investment to GDP indicates that the PA's growth might not be sustainable. This conclusion goes along with the previous point. The sustainability of the PA's growth must result from an increase in investment rather than an increase in consumption.

The trade deficit increased by over a US$ 1 billion over the 21 years of the study, an increase of 62%, almost 3% annually. This increase was due to the sharp increase in imports, by over US$ 2.1 billion, against an increase in exports of just under US$ 1.1 billion. This conclusion supports the two previous conclusions, that the PA's economy is a consumption led economy. In order to decrease this deficit, investment in substituted and export led goods must be encouraged since this will lead to an increase in exports and a decrease in imports. And hence a drop in trade deficit. This again means that the PA should give more attention to investment in order to produce a more sustainable economy.

Per capita GDP growth over the period was only 20.8%, an annual increase of almost 1%. This low increase in per capita GDP was accompanied by an increase in inflation by 61.3% over the period. Such a large difference between the per capita GDP and inflation resulted in a sharp drop in the standard of living, which increased poverty levels. This low rate of growth shows the weakness of the Palestinian economy.

The contribution of agriculture to GDP dropped sharply in the 21 years of the study by 20.7%, from 11.7% as a percentage of GDP in 1994 to only 3.8% in 2014. The PA controlled areas, especially the West Bank, depends largely on agricultural imports from Israel. It is important that more investment is put into agriculture and agricultural manufacturing industry. This will help in reducing imports and increasing exports. Agriculture is one of the important areas of future investment. It is very well known that investment in this sector also needs investment in cold storage facilities, to give farmers the ability to store their harvest and sell it at good prices outside the season. So, investment is also needed in cold storage facilities.

The share of manufacturing and electricity generation in the GDP increased by 56% over the period, from US$ 706 million in 1994 to US$ 1,106 million in 2014, an annual increase of only 2.7%. This increase was not enough to prevent the decrease of the share of this sector in GDP. Manufacturing and electricity's share of GDP dropped from 22.9% in 1994 to 14.8% in 2014. Investment in the electricity and food production will help to increase the share of this sector in the GDP, as well as helping in the reduction of the trade deficit. This points again to the need for investment by the PA government.

Services increased by 78% over the period, this is larger than the increase in the other productive sectors, but this increase was enough to increase its share in the GDP over time. The share of GDP taken up by the services sector reduced from 29.5% in 1994 to 20.8% in 2014. Investing in the tourism industry will definitely help in increasing this sector's share in GDP.

The PA's budget depends primarily on customs duty and VAT and the growth in VAT and customs duty was very large, with VAT increasing by 576% and customs duty by 209% to reach a value of around 14% of GDP, a value in the range of other countries in the region. This sharp increase helped to adjust part of the budget deficit. Although the PA is still trying to increase this ratio, it should be cautious in such an increase. The PA's strategy should go towards increasing the PA economy size, by promoting sustainable growth, such growth can only be through the promotion in investment. Yet again, we find that investment is the key to develop the Palestinian economy, and hence more attention should be put in this direction.

Public administration increased by 75.3%, from US$ 226 million in 1994 to US$ 971 million in 2014, i.e. from 7.3% to 13% of GDP. This annual increase of 3.7% means that the PA is spending more on defence and less on investment. This shows again the consumption nature of the PA economy, and the ill-advised policies it has adopted over its life, especially after 2004, when it increased government spending, but, primarily on wages and the running costs of the PA's government, rather than increasing spending on development. After 2004, and after the relative reduction in violence, the donor community increased aid dramatically, but the PA spent aid on running cost. If this aid was spent on investment, the economic situation of the PA would have become more sustainable and less dependent on aid. The PA should work on reducing current expenses and increasing development expenditure.

From 1995-1999 the PA's budget deficit was only in the development expenditure, which means that the Authority was covering its running costs from internal tax collection, and aid was mainly directed towards developmental projects. From 2000, however, and after the break in the violence, and the Israeli refusal to transfer the customs duty taxes and VAT money to the PA, as well as the inability of the PA to collect taxes, the budget

deficit before aid increased and accordingly aid increased to cover this deficit. From 2003-2014 over 96% of the budget was to cover running expenses, with only a little left over to be spent on development projects. This period is considered the start of aid dependency. The main problem in the PA's thinking in 2004, was when they started the sharp increase in the number of public employees, and the increase in running public spending, financing this by external aid. The idea behind that policy was to reduce the unemployment that resulted from Israel's sharp reduction in Palestinian labour working in Israel. This policy could not be sustained without external aid, and with time the PA budget became aid dependent.

Remittances increased by 157.5% in the period under study, from US$ 582 million in 1994 to US$ 1,680 million in 2014m although these numbers fluctuated sharply (up to US$ 1.1 billion in 1998 and down to US$ 310 million in 2002, and then up again to US$ 1.8 billion in 2013). With remittances from the Palestinian labour working in Israel being the major component, this sharp fluctuation can be related to the Israeli control over the number of people who are allowed to work in Israel. This shows another angle of the Israeli control on the Palestinian economy. Israeli control on personal remittances was not the only danger, but the policy of importing Palestinian workers to work in Israel also made labour costs more expensive in the PA controlled areas, and hence made Palestinian industry more costly. Now, with Israel's increased demand for labour, the PA should invest in vocational and technical education, in order to graduate new skilled workers to substitute for those who are working in Israel and to meet the demand that will be created as a result of the increase in investment.

Savings were negative in all 21 years of the study, increasing in negative values relative to GDP from -17.1% in 1994 to -20.6% in 2014, and reaching their maximum negative value of -36.6% in 2007. It is clear here that when aid was almost at its highest levels, saving was at its minimum. Although we could not include savings in our mathematical model (we cannot take natural logarithms for negative values), it is clear that aid did not have a positive effect on savings, and could not help in the reduction in the investment gap. The fact that aid does not positively affect savings again shows why it does not have

a positive effect on investment. This again leads to the conclusion that aid was mostly used on consumption, leading to non-sustainable growth.

The high amount of aid donated to the Palestinian Authority has not resulted in a sustainable economy, but only to growing levels of consumption, serving to maintain an almost fixed ratio of consumption /GDP. All the aid that was pumped into the economy after the year 2000, was either pumped into the budget or to humanitarian organizations, and in both cases aid was spent on consumption, which kept this ratio at around 120%. This shows us clearly that there should be some significant changes in the way aid is spent. If aid continues to be spent in the same way, the Palestinian economy will continue to be aid dependent and consumption led. To reduce dependency on aid in the long run, part of the aid must be spent on investment as was concluded earlier in this chapter. From 1996-2014, aid to budget was US$ 16.14 billion, some 60% of the total aid donated to the Palestinian Authority. Only 25% of this was allocated to development. 57% of the developmental budget was spent in the period 1996-2003, an annual rate of US$ 292 million, while the average annual development budget in the last 10 years of the research was only US$ 135 million. What is important, however, is that under all circumstances the PA would not have survived without external aid. It is clear that aid played a major role in financing the fiscal gap. So, aid has to continue partially in its support to the PA budget, since without aid to the budget, the PA will collapse and cease to exist.

This research has shown clearly the negative and positive aspects of external aid, in that aid turned the PA into an aid dependent entity, but at the same time helped ensure its survival. The second part of this research tested the impact of aid through a mathematical model. This is the first time the impact of aid on growth in Palestine was studied using empirical analysis. The model used was based on (Adamu, 2013) model analysing the impact of aid on the ECOWAS countries. It was based on a three simultaneous equation model that used 13 variables. When the model was adapted for used for the Palestinian case, three variables were omitted: interest rates, since Palestinians have no local currency, and national savings and international reserves because of their negative values in all of the years under study, which cannot be used in logarithmic equations. The model

used, therefore, had ten variables. The model was estimated using both 2SLS and 3SLS estimators, but the only results of the 3SLS were discussed in our analysis.

From the empirical findings, foreign aid was found to be significant and negatively related to the economic growth of the areas controlled by PA, measured through the proxy of per capita GDP. Taking the uniqueness of the Palestinian case into account, the results were considered to be consistent with previous studies that have found that aid has a negative effect on economic growth, regardless of the fiscal and macro-economic policies in place. Some studies go even further, accusing aid of promoting dictatorship and corruption, which might be the case in the PA controlled areas, where the last parliamentary and presidential elections were held in 2006 and 2005 respectively, the elections which were to take place in 2009 and 2010 had been postponed until now, with no sign that they will held soon.[14] This interesting result of a negative relationship between aid and growth is in line with the descriptive analysis, and simply means that no matter how much aid is increased, its impact will be negative on growth as long as the political circumstances remain the same, and the areas of aid spending remain the same.

Investment was found to be significantly and positively related to growth. This result is in line with theory, as growth increases when investment increases. Since, in theory, investment in the PA controlled areas is considered to be a main driver for the promotion of all productive elements in the economy, and hence promoting growth, the same argument goes for FDI which was also found to be significantly and positively related to growth. Exports were found to follow the same pattern as investment and FDI. Investment had the highest coefficient, followed by exports, with FDI having the smallest coefficient. This makes investment the main driver of growth in the PA controlled areas, alongside exports and FDI. These results clearly show that aid as currently constituted in

[14] Many believe that aid to the PA is promoting dictatorship, one of those was Richard Benwell, 2012, writing to the Parliament constitution center, who reported the lack of freedom of speech, the lack of periodic elections, and the lack of separation between the three powers. Although the Oslo accord stated the necessity of free parliamentary elections, only two elections have been conducted for both parliament and presidency in the past 21 years. The last election was held in 2005 for the presidency, and 2006 for the parliament. What is even worse is that no official meeting for the parliament was held in the past 10 years. All new legislation has been signed by the president. Accordingly, we suggest that the effect of aid on democracy needs further research, testing whether aid promotes dictatorship in the PA.

the areas controlled by the PA, will not affect growth positively, but in order to have a better effect on economy it must go through investment and exports. Export led and local industries usually go through the private sector, so we can assume that development aid should target the private sector rather that government investment. But this issue requires more investigation.

All the above results go along with theory, and strongly suggest that in order to promote economic growth in the PA controlled areas, more emphasis should be put on investment, especially in exports and substitution oriented sectors of the industry.

Producing substitution goods will reduce the need for imports, while producing export goods will increase exports, and in both cases the trade balance will be reduced. This increase in production will enlarge the economy and GDP, and hence increase government collection.

It was also found that investment in relation to aid was statistically insignificant, which means that aid had no effect on investment. This result is in line with the descriptive analysis which showed that investment reduced with time regardless of the increase or decrease of aid. In the second period of violence, aid increased sharply while investment reached its lowest levels. In the period 2008-2010 aid reached its maximum values, while investment was fluctuating around a constant value. This result consolidates the earlier conclusion that aid was not spent on investment, but rather was spent on consumption.

One interesting result was the significant positive relationships between investment and FDI, and investment and export. This implies that as FDI and exports increase, investment will increase, and as investment increases then economic growth will increase. This also strengthens our conclusion that, along with investment, the PA should work hard on promoting exports and encouraging foreign investment.

The above description of the results clearly shows that foreign aid is not the key element for economic growth. Rather, the key elements are investment, exports and FDI, and hence in order to promote growth in the PA controlled areas, investment, export and FDI must be given special attention. Exports can only be led by the private sector, so

investment should concentrate more on private sector investment, which also includes foreign direct investment (FDI).

Final conclusions.

Aid was found to be an important factor in bridging the fiscal gap and might have played a small part in financing the trade deficit (this was largely influenced by personal remittances), but it did not manage to increase domestic saving, and hence did not affect investment, this was also clear in the empirical model, where the effect of aid on investment was statistically insignificant.

The solution for the Palestinian economy was shown to be through increasing investment, specifically in export led industries as well as consumable products that will replace exports, especially in the agriculture industry. Increasing investment will help in the reduction of the trade deficit by increasing exports and reducing imports, it will also help in the reduction of the fiscal deficit, through the increased tax collection from a bigger economy. This bigger economy will also help in increasing per capita income and hence reduce the savings gap.

So, our conclusion on aid inflow is that it should continue at the same levels, as it is clear that the PA will collapse without aid, but in order to make aid more effective, the way in which it is spent must change, with more spent on investment, especially on infrastructure and soft loans to the private sector. This conclusion has discussed by many researchers, including the World Bank, but all failed to identify the sectors and steps to be taken. Our conclusion adds to this that aid must have a leading role in promoting investment. This role must take into consideration changes that are needed to be introduced in the way aid was spent, as well as the setting up of a body that is capable of leading this process.

Accordingly, the major recommendation of this thesis as it was described in detail in chapter 6: namely the establishment of an investment fund, financed by part of the aid that is diverted from budgetary support, to be spent on soft loans to the private sector. This fund should be managed by business professionals under the supervision of a board

of directors that includes representatives of donor countries, government and the private sector. The fund should give special attention to small, medium and micro businesses. This fund should be independent of the Palestinian Authority with an external and independent audit. The PA can submit and discuss Palestinian priorities, but it should not have any decisive rule. Such independency will increase the confidence and trust of the donors' community in this fund.

References.

Abed Alkareem, N., & Makhool, B. (2005). *For more effectiveness usage of foreign aid donated to the Palestinian people*. Ramallah-Palestine: Palestinian Economic Policy Research Institute-MAS. Arabic

Abdullah, S., & Hen, H. (2016). *The impact of direct foreign aid to the Palestinian Private sector*. Palestinian Economic Policy Research Institute-MAS. Arabic

Abu AlQomsan, A. (2005). *The Palestinian economy between investment opportunities and future challenges*. Gaza-Palestine: Islamic University. Arabic

Abu Eideh, O. (2014). *Factors of Economic Growth in Palestine. An empirical analysis during the period 1994-2013*. Tulkarm-Palestine: Al-Quds Open University.

Adamu, P. (2013). *The impact of foreign aid on economic growth in ECOWAS countries. A simultaneous-equation model*. United Nation University. Working paper No 2013/143. UNU-WIDER 2013. 1-24

Alfaro, L., Chanda, A., Kalemli-Ozcan, S., & Sayek, S. (2010). Does foreign direct investment promote growth? Exploring the role of financial markets on linkages. *Journal Of Development Economics*, *91*(2), 242-256.

Al-shoabi, H. (2013). *Paris Protocol, revision of implementation*. Ramallah-Palestine: The Centre for economic policies. MAS. arabic

Alvi, E., Mukherjee, D., & Shukralla, E. (2008). Aid, Policies, and Growth in Developing Countries: A New Look at the Empirics. *Southern Economic Journal*, *74*(3), 693-706.

Amitay, Y. (1994). Islam and Judaism: a religious or national confrontation. *Palestine-Israel Journal. 1*(2). http://www.pij.org/details.php?id=743

Arndat, C., Jones, S., & Trap, F. (2009). *Aid and Growth*. UNO-WIDER. World institute for development economic research.

Arnon, A. (2007). Israeli Policy towards the Occupied Palestinian Territories: The Economic Dimension, 1967-2007. *The Middle East Journal*, *61*(4), 573-595.

Awaddallah, F., & Atrash, A. (2014). *Transportation and mobility in the West Bank and Gaza Strip*. Viktoria Waltz.

Bacha, E. (1990). A three-gap model of foreign transfers and the GDP growth rate in developing countries. *Journal Of Development Economics*, *32*(2), 279-296.

***B**alfour, J, (2017). Text of the Balfour Declaration*. (2017). *Jewishvirtuallibrary.org*. Retrieved 6 February 2016, from http://www.jewishvirtuallibrary.org/jsource/History/balfour.html

Barghouthi, D., & Totah, K. (2001). *Palestine History* (1st ed.). Port Said-Egypt.: Religious culture library. Arabic

Bearce, D., & Tirone, D. (2010). Foreign Aid Effectiveness and the Strategic Goals of Donor Governments. *The Journal Of Politics*, *72*(3), 837-851.

Boone, P. (1996). Politics and the effectiveness of foreign aid. *European Economic Review*, *40*(2), 289-329.

Boersoma, T., & Sachs, S. (2015). *Natural gas extraction in tumultuous times? Foreign Policy at Brookings*.

Burnside, C., & Dollar, D. (2000). *Aid, Policies, and Growth*. The American Economic Review, 90(4), 847-868.

Cali, M. (2011). *Military occupation, foreign aid and the elusive quest for a viable Palestinian economy*. Presentation, University of Hebron-Palestine.

Channing, A., Jones, S., & Trap, F. (2011). *Aid effectiveness: Opening the black box*. World Institute for Development Economics Research.

Chenery, H., & Bruno, M. (1962). Development Alternatives in an Open Economy: The Case of Israel. *The Economic Journal*, *72*(285), 79.

Chenery, H., & Strout, S. (1966). Foreign Assistance and Economic Development. *American Economic Review*, *66*(1), 679-753.

Chisary, O., & Fanelli, J. (1990). Three gap models, optimal growth and economic dynamics of highly indebted countries. *CEDES-CONICET (Argentina).* 177-206.

***C**IA*, (2017). ***T**he CIA Fact Book Central Intelligence Agency*. Retrieved 12 August 2016, from https://www.cia.gov/library/publications/the-world-factbook/geos/we.htmlTrap

Collier, P., & Dollar, D. (2002). Aid allocation and poverty reduction. *European Economic Review*, *46*(8), 1475-1500

Cuaresma, J., & Wörz, J. (2005). On Export Composition and Growth. *Review Of World Economics,*, *141*(1), 33-49.

Dawidowics, L. (1968). *The Arab Israeli war of 1967*. American Jewish year book.

Djankov, S., Garcia-Montalvo, J., & Reynal-Querol, M. (2006). Does Foreign Aid Help? *SSRN Electronic Journal*.

Easterly, W. (2003). Can Foreign Aid Buy Growth?. *Journal Of Economic Perspectives*, *17*(3), 23-48.

Easterly, W., Levine, R., & Roodman, D. (2004). Aid, Policies, and Growth: Comment. *American Economic Review*, *94*(3), 774-780.

Edelheit, A. (2000). The holocaust and the rise of Israel. *Jewish Political Studies Review*, *12*(1/2), 97-112

Ekanayake, E., & Chatrna, D. (2010). The effect of foreign aid on economic growth in developing countries. *Journal Of International Business And Cultural Studies*, 1-13.

European Union. (2015). *Water in the Israeli-Palestinian*. Retrieved 14 July 2016, from *http://www.europarl.europa.eu/thinktank*.

***F**inancial Times/Lexicion, (2016). Dutch Disease Definition from Financial Times Lexicon*. (2016). *Lexicon.ft.com*. Retrieved 31 May 2017, from http://lexicon.ft.com/Term?term=dutch-disease

Greene, W. H. (2003). *Econometric Analysis,* 5th ed. Upper Saddle River: Prentice Hall.

Hadjimichael, M. T., D. Ghura, M. Muhleisen, R. Nord, and E.M. Ucer (1995). '*Sub-Saharan African Growth, Savings and Investment*, 1986-93'. IMF Occasional Papers, 118. Washington, DC: International Monetary Fund.

Hasneen, M. (2013). *Palestinian Investment Promotion Agency*. *Ipa.ps*. Retrieved 3 January 2017, from http://www.ipa.ps/#

Hanson, H., & Trap, F. (2001). Aid and growth regression. *Journal Of Development Economics*, *64*(2), 547-570.

Hellman, Z. (2014). *Why the Oslo Accords Failed | My Jewish Learning*. *My Jewish Learning*. Retrieved 15 October 2015, from

http://www.myjewishlearning.com/article/why-the-oslo-accords-failed/

Herzl, T. (2013). *Zionist Congress: First Zionist Congress & Basel Program*. *Jewish virtual library*. Retrieved 2 June 2015, from http://www.jewishvirtuallibrary.org/first-zionist-congress-and-basel-program-1897

Herver, S. (2006). *The economy of the occupation*. The alternative information Centre.

Hilal, R. (2015). *Financing the vocational and technical training in Palestine*. Ramallah-Palestine.

Husseini and Khalidi, (2013) ***F**ixing the Paris Protocol Twenty Years Later: Frequently Asked Questions for Diehard Reformers*. (2013). *Jadaliyya*. Retrieved 2 June 2016, from http://www.jadaliyya.com/pages/index/10023/fixing-the-paris-protocol-twenty-years-later_frequ

ILO. (2015). *the situation of Workers of the occupied Arab Territories*. ILO.

***I**nternational Development Statistics (IDS) online databases - OECD*. (2016). *Oecd.org*. Retrieved 3 January 2017, from http://www.oecd.org/dac/stats/idsonline.htm

***I**nfoplease, (2013). Israeli-Palestinian Conflict Timeline*. (2017). *Infoplease.com*. Retrieved 9 September 2013, from http://www.infoplease.com/world/countries/israel-palestine-conflict/timeline.html

IMFA, (1998). Israel Ministry of Foreign Affair. *The wye river memorandum*. (1998). *Mfa.gov.il*. Retrieved 1 June 2017, from

http://www.mfa.gov.il/mfa/foreignpolicy/peace/guide/pages/the%20wye%20river%20memorandum.aspx

Jebarah, T. (1998). *History of Palestine* (1st ed.). Amman-Jordan: Dar Al-Shorouq for publications.

Juselius, K., Møller, N., & Tarp, F. (2013). The Long-Run Impact of Foreign Aid in 36 African Countries: Insights from Multivariate Time Series Analysis*. *Oxford Bulletin Of Economics And Statistics*, *76*(2), 153-184. http://dx.doi.org/10.1111/obes.12012

Kang, J., Prati, A., & Rebucci, A. (2013). Aid, Exports, and Growth: A Time-Series Perspective on the Dutch Disease Hypothesis. *SSRN Electronic Journal*. http://dx.doi.org/10.2139/ssrn.1815978

Kayali, A. (1990). *Modern history of Palestine* (10th ed.). Beirut- Lebanon: Arab institute for research and publication.

KHAN, M. (1996). Government Investment and Economic Growth in the Developing World. *The Pakistan Development Review*, *35*(4), 419—439.

Khan, M. (2003). *Memorandum submitted by Dr Mushtaq Husain Khan*. London-UK: SOAS, University of London.

KILAVUZ, E., & Betül, A. (2012). Export and Economic Growth in the Case of the Manufacturing Industry: Panel Data Analysis of Developing Countries. *International Journal Of Economics And Financial Issues*, *2*(2), 201-215.

Lacalle-Calderón, M., Chasco, C., Alfonso-Gil, J., & Neira, I. (2015). A comparative analysis of the effect of aid and microfinance on growth. *Canadian Journal Of Development Studies / Revue Canadienne D'études Du Développement*, *36*(1), 72-88. http://dx.doi.org/10.1080/02255189.2015.984664

***L**aw Number1-1996. Aquisition of Appertemrnts and shops*. (2014). *Muqtafi.birzeit.edu*. Retrieved 12 October 2016, from http://muqtafi.birzeit.edu/pg/getleg.asp?id=7285

Lee, C., & Hung, B. (2002). Relationship between exports and economic growth in East Asian countries: A multivariate threshold autoregressive approach. *JOURNAL OF ECONOMIC DEVELOPMENT*, *27*(2), 45-68.

***M**aan News Agency.* (2017). *Maannews.net*. Retrieved 8 April 2017, from http://www.maannews.net/Content.aspx?id=901845.

***M**aps of the world,* (2013). *Where is Palestine?* Retrieved 14 June 2014, from https://www.mapsofworld.com/palestine/palestine-location-map.html

McKinnon, R. (1964). Foreign Exchange Constraints in Economic Development and Efficient Aid Allocation. *The Economic Journal*, *74*(294), 388-410. http://dx.doi.org/10.2307/2228486

Middle East Eye (2017). *Timeline: Israel - Gaza conflict*. *Middle East Eye*. Retrieved 25 July 2016, from http://www.middleeasteye.net/news/timeline-israel-gaza-conflict-1595503520

***M**iddle East web, (2008). Second Intifada Timeline*. (2010). *Mideastweb.org*. Retrieved 20 August 2016, from http://mideastweb.org/second_intifada_timeline.htm

Morrissey, O. (2001). Does aid increase growth?. *Progress In Development Studies*, *1*(1), 37-50.

Nashahiby, K., Yitzhak, G., & Rock, B. (2015). *Palestinian-Israeli economic relations: Trade and economic regime*. Office of the Quartet representative.

Nowak-Lehmann, F., Dreher, A., Herzer, D., Klasen, S., & Martínez-Zarzoso, I. (2012). Does foreign aid really raise per capita income? A time series perspective. *Canadian Journal Of Economics/Revue Canadienne D'économique*, *45*(1), 288-313.

***O**CHA*. (2017). Annual Report. *Unocha.org*. Retrieved 16 August 2015, from http://www.unocha.org/about-us/publications/flagship-publications/*/77

Pappe, I. (2016). *The ethnic cleansing of Palestine* (1st ed.). Oxford-UK: One World Publications.

Palestinian Central Bureau of Statistics. (2012). Ramallah-Palestine. Retrieved from http://www.pcbs.gov.ps/Portals/_pcbs/PressRelease/int_Pop_2012e.pdf

***P**CBS*. (2015). *Pcbs.gov.ps*. Retrieved 12 July 2014, from http://www.pcbs.gov.ps/site/lang__en/507/default.aspx

***P**alestine Ministry of Finance* (2015)b. *Pmof.ps*. Retrieved 2 October 2016, from http://www.pmof.ps/en/41

Palestine. Ministry of Finance, (2015)b. ***A**nnual Reports –Pmof.ps*. Retrieved 25 July 2016, from http://www.pmof.ps/en/43 Arabic

***P**alestinian Ministry of National Economy*. (2016). *Mne.ps*. Retrieved 8 August 2016, from http://www.mne.ps/mne/download/economystudies/27.htm Arabic

Palestinian Shippers Council. (2014). *Palestinian control over trade*. Ramallah-Palestine.

Phetsavong, Kongphet, & ICHIHASHI. (2012). *The Impact of Public and Private Investment on Economic Growth: Evidence from Developing Asian Countries*. Hiroshima -Japan: Hiroshima University.

***P**MA Statistics*. (2015). *Palestine Monitory Authorirt*. Retrieved 12 November 2013, from from: http://www.pma.ps/ar-eg/statistics/timeseriesdata.aspx

Qabajah, A. (2012). *PA Fiscal Sustainability*. Ramallh-Palestine: Palestine Economic Policy Research Institute. MAS.

Qoreiaa', A. (2012). *Ninteen years after Paris Protocol*. *The Arab Forum*. Retrieved 27 June 2015, from http://www.multaqa.org/pdfs/Abu%20Alaa.pdf Arabic

Quartet. (2014). Initiative for the Palestinian Economy. Summary Overview. Office of the quartet representative-Jerusalem.

Quartet, (2017. The Initiative for the Palestinian Economy | Office of the Quartet Representative. (2017). *Tonyblairoffice.org*. Retrieved 11 July 2016, from http://www.tonyblairoffice.org/quartet/pages/the-initiative-for-the-palestinian-economy/

Rabinovich, I., & Reinharz, J. (2008). *Demographics of Israel: Jewish & Non-Jewish Population of Israel/Palestine*. *Jewish Virtual Library*. Retrieved 20 June 2016, from http://www.jewishvirtuallibrary.org/jewish-and-non-jewish-population-of-israel-palestine-1517-present

Rynhold, J. (2008). The failure of the Oslo process: Inherently flawed or flawed implementation. *Mideast Security and Policy Studies*, *76*, 1-30.

Saad, W. (2013). *A critical look at the Palestinian Authority performance 1994-2011*. Bierut-Lebanon: Al-Zaytouna center for studies and consultantion. Retrieved from http://www.alzaytouna.net/2013/03/01/%D9%82%D8%B1%D8%A7%D8%A1%D8%A9-%D9%86%D9%82%D8%AF%D9%8A%D8%A9-%D9%81%D9%8A-%D8%AA%D8%AC%D8%B1%D8%A8%D8%A9-%D8%A7%D9%84%D8%B3%D9%84%D8%B7%D8%A9-%D8%A7%D9%84%D9%88%D8%B7%D9%86%D9%8A%D8%A9-%D8%A7%D9%84/ Arabic

Saad, A. (2015). *The effect of remittance on key macroeconomic variables: The case of Palestine*. the Palestine economic policy research institute. MAS. Arabic

Said, E. (1993). *The morning after. The London review of books* (1st ed., pp. 3-5). London-UK: The London review of books.

Sachs, J., McArthur, J., Schmidt-Traub, G., Chandrika, B., Faye, M., & McCord, G. (2004). *Ending Africa's Poverty Trap*. Columbia University and UN Millennium projects.

Samir Abdullah, S., & Kanafani, N. (2010). *Executive summary. Economic and social monitor, Vol. 22*. Ramallah-Palestine: Palestine Economic Policy Research Institute – MAS. Arabic

Samir Abdullah, S., & Kanafani, N. (2007)a. *Executive summary. Economic and social monitor, Vol. 8* Ramallah-Palestine: Palestine Economic Policy Research Institute –MAS. Arabic

Samir Abdullah, S., & Kanafani, N. (2007)b. *Executive summary. Economic and social monitor, Vol. 9* Ramallah-Palestine: Palestine Economic Policy Research Institute –MAS. Arabic

Samir Abdullah, S., & Kanafani, N. (2007)c. *Executive summary. Economic and social monitor, Vol. 10*Ramallah-Palestine: Palestine Economic Policy Research Institute – MAS. Arabic

Sawa News, (2016). *Palestinian Prime minister Dr. Rami Al Hamdallah on Gaza*. *Sawa*. Retrieved 12 October 2016, from http://www.palsawa.com/news/2016/01/31/main/57998.html Arabic

Sela, A. (2009). Difficult Dialogue: The Oslo processes in Israeli prospective. *Macalester International*, *23*(2), 104-138.

Shiffer, Z. (1986). *Adjusting to high inflation: The Israeli experience*. San Luis: Federal Reserve Bank of san Luis.

Shlaim, A. (2005). The rise and fall of the Oslo peace process. *International Relations Of The Middle East*, 241-261. Retrieved from http://users.ox.ac.uk/~ssfc0005/The%20Rise%20and%20Fall%20of%20the%20Oslo%20Peace%20Process.html

Shoukair, S. (2013). *The impact of foreign aid and donations to Palestine on development of its economy under alternative Israeli-Palestinian economic interaction regime.* (Ph.D). University of Portsmouth-England.

Sourani, G. (2011). *The Gaza Strip 1948-1993 A historic, economic and social study*. *Modern Dialogue*. Retrieved 4 June 2015, from http://www.ahewar.org/debat/show.art.asp?aid=364924 Arabic

UNCTAD. (2011). The Palestinian economy: achievements of the interim period and tasks for the future.New York and Geneva. New York and Geneva.

UNCTAD. (2013). Development in the economy of the occupied Palestinian territories New York and Geneva. New York and Geneva.

UNCTAD. (2015). The besieged Palestinian agriculture sector. New York and Geneva.

***U**nited Nation-OCHA,* (2011)a. ***H**umanitarian fact sheet on area C of the West Bank* Retrieved 12 June 2014, from https://www.ochaopt.org/documents/ocha_opt_area_c_fact_sheet_july_2011.pdf

***U**nited Nation-OCHA,* (2011)b. *Movement and access in the West Bank*. Retrieved 1 June 2015, from

https://www.ochaopt.org/documents/ocha_opt_movementandaccess_factsheet_september_2011.pdf

World Bank. (1996). *Statement on Palestinian economy*. World Bank.

World Bank. (2003). *Twenty seven months, Intifada, closure, and Palestinian economic crises. An assessment*. World Bank.

World Bank. (2007). *World Bank and Gaza energy sector review*. World Bank.

World Bank. (2008). *West Bank and Gaza. The economic effect of restricted access to land in the West Bank.*

World Bank. (2009). *Palestinian economic prospect: Gaza recovery, and West Bank revival.* World Bank.

World Bank. (2012). *Towards economic sustainability of a future Palestinian state: Promoting private sector-led growth*. World Bank.

World Bank. (2014). *Four years, Intifada, closures, and Palestinian economic crises*. **W**orld Bank.

World Bank. (2015). *West Bank and Gaza Home*. *Worldbank.org*. Retrieved 15 April 2015, from http://www.worldbank.org/en/country/westbankandgaza

World Bank. (2016). *Towards Enhanced Public Finance Management and Improved Fiscal Sustainability*. World Bank.

World Bank, (2017)a. Data online on Israel. Retrieved 12 August 2015, from http://data.worldbank.org/country/israel

World Bank, (2017)b. Data online on Jordan. Retrieved 12 August 2015, from http://data.worldbank.org/country/israel

Appendices

Appendix 1: Proof of Identifications of the equations of the Model

This appendix will depend on Adum, P. 2013 analysis to show that each of the three equations specified satisfies both the order condition (the necessary condition) and the RANK condition (the necessary and sufficient condition of identification).

1. Order condition of identification for equation J:

According to Green 2003: 392), the order condition of identification fort equation J is that

K_j* (the number of exogenous variables excluded from equation j) be greater than or equal to M_j (the number of endogenous variables included in equation j).
GDPpc Equation: K_j*=3 and M_j=3. Since 3=3, this equation is over-identified.
LAID Equation: K_j*=4 and M_j=2. Since 4>2, this equation is over-identified.
LINV Equation: K_j*=4 and M_j=2. Since 4>2, this equation is over-identified.

2. Rank condition of identification

According to Greene (2003: 392), the rank condition imposes a restriction on a sub-matrix of the reduced-form coefficient matrix in order to ensure that there is exactly one solution for the structural parameters given the reduced-form parameters. To proceed, first arrange the structural parameters in a tableau and examine the sub-matrices one by one. For equation j, we form a sub-matrix of the structural coefficients in the other equations on variables that are excluded from equation j and check if all the elements of any column or row are all zero.
Such a result will indicate that the equation is not identified.
The sub-matrix for GDPpc equation is:
|1 1 0 |
|0 1 1 |

Consider the sub-matrix. There are tree columns and two rows. Since there are no columns or rows consisting of only zeros, we conclude that the GDPpc equation is identified.

The sub-matrix for LAID equation is:

|1 1 1 0 |

|1 0 1 1 |

Note that there are no columns or rows consisting of only zeros. Therefore, we conclude that the LAID equation is identified.

The sub-matrix for LINV equation is:

|1 1 1 0 |

|1 0 1 1 |

An examination of this sub-matrix shows that there are no columns or rows consisting of only zeros. Hence the conclusion is that the LFDI equation is identified.

Appendix 2: Economic estimation results:

The 3SLS results for Palestinian Territories (West Bank and GAZA) are given below:

Three-stage least-squares regression

Equation	Obs	Parms	RMSE	"R-sq"	chi2	P
lnPCY	19	7	.0192836	0.9741	730.91	0.0000
lnAid	19	5	.1500446	0.9344	273.09	0.0000
LnINV	19	5	.133081	0.5125	24.09	0.0002

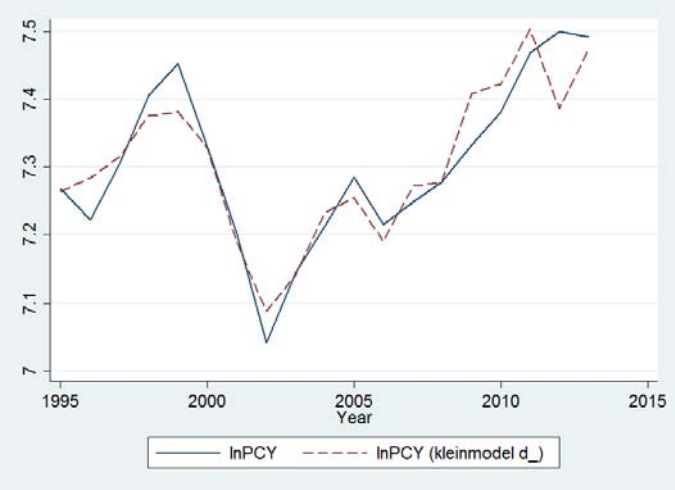
	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
lnPCY						
lnAid	-.1009495	.0176778	-5.71	0.000	-.1355973	-.0663017
LnINV	.25535	.0618049	4.13	0.000	.1342145	.3764854
lnHK	.1620557	.1264581	1.28	0.200	-.0857976	.4099091
lnFDI	.0220052	.0103327	2.13	0.033	.0017535	.0422569
lnXPORT	.2033191	.0349259	5.82	0.000	.1348657	.2717726
LnINF	-.0133768	.0101511	-1.32	0.188	-.0332725	.006519
POLDUMMY	-.0056431	.0192252	-0.29	0.769	-.0433237	.0320376
_cons	4.329413	.3512722	12.32	0.000	3.640933	5.017894
lnAid						
LnINV	-.5397631	.3566988	-1.51	0.130	-1.23888	.1593537
lnPOP	3.34921	.5195289	6.45	0.000	2.330952	4.367468
LnINF	.0652613	.0766146	0.85	0.394	-.0849006	.2154232
lnXPORT	.1991246	.246862	0.81	0.420	-.2847161	.6829653
POLDUMMY	-.0121127	.1207206	-0.10	0.920	-.2487206	.2244953
_cons	-40.5842	7.612834	-5.33	0.000	-55.50508	-25.66332
LnINV						
lnAid	.0646301	.0545476	1.18	0.236	-.0422812	.1715415
lnFDI	.1761583	.0492902	3.57	0.000	.0795514	.2727653
lnEXRT	.6955669	.3589485	1.94	0.053	-.0079592	1.399093
LnINF	.0191586	.0615008	0.31	0.755	-.1013808	.1396981
POLDUMMY	.0260995	.1142423	0.23	0.819	-.1978113	.2500102
_cons	5.002996	.7074122	7.07	0.000	3.616493	6.389498

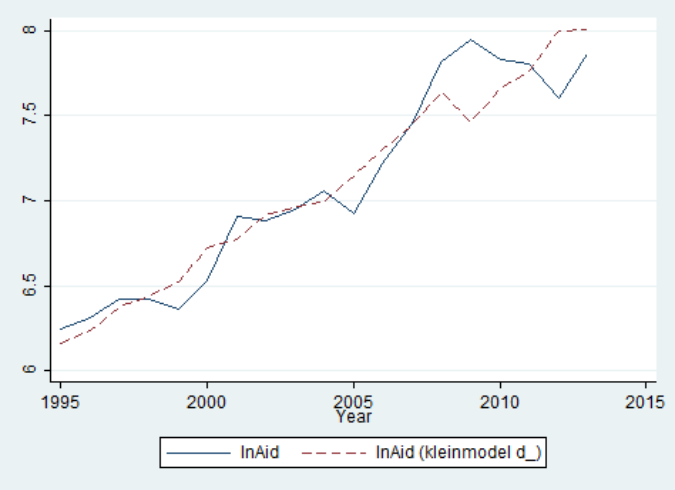
Endogenous variables: lnPCY lnAid LnINV
Exogenous variables: lnHK lnFDI lnXPORT LnINF POLDUMMY lnPOP lnEXRT

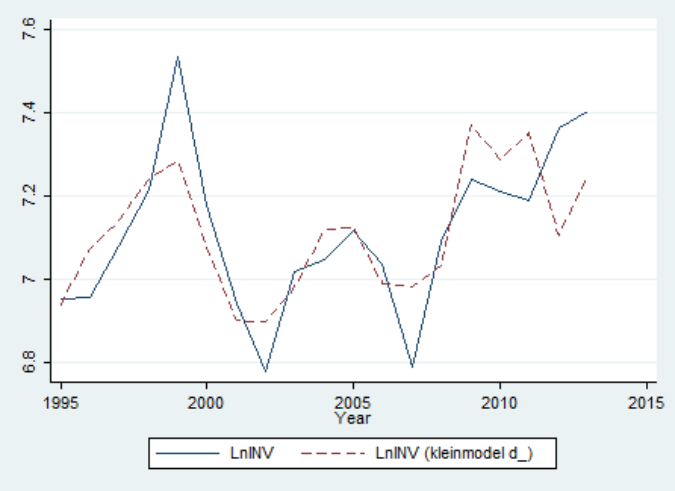
Appendix 3: Data time series:

Year	PCY	Aid	FDI	INV	INFL	EXRT	XPORT	Population	POLDUM	HK
1995	1434.6	514.11	122.5836	1046.5	0.02	3.01	562.1	2614179	0	8.12
1996	1369.9	552.41	177.2073	1051.6	0.04	3.239	546	2697310	0	8.14
1997	1487.5	613.03	163.0033	1186.4	0.07087	3.554	650.3	2783084	0	8.18
1998	1645.2	612.57	218.1531	1361.5	0.055796	3.802	734.4	2871568	0	8.55
1999	1723.9	580.55	188.6318	1874.1	0.055444	4.162	751.6	2962226	0	8.659573
2000	1526.7	684.5	62	1312.2	0.027982	4.086	885	3053335	0	8.84621
2001	1345	997.59	19.2	1035.7	0.012228	4.208	615.9	3138471	1	8.988043
2002	1143.7	971.61	9.4	877.5	0.057095	4.742	477.8	3225214	1	9.141393
2003	1267	1041.84	18	1117.1	0.04403	4.55	515.1	3314509	1	9.276805
2004	1358.1	1160.84	48.9	1151.5	0.030042	4.478	596.8	3407417	0	9.404575
2005	1459.4	1015.71	46.5	1234	0.041073	4.482	723.3	3508126	0	9.503921
2006	1360.1	1360.25	18.6	1138.2	0.038423	4.454	736.3	3611998	1	9.647552
2007	1406	1717.11	28.3	888.5	0.018597	4.11	1066.3	3719189	0	9.759761
2008	1449.1	2470.08	51.5	1199.4	0.0989	3.567	1165	3825512	0	9.893005
2009	1529.8	2826.68	300.5	1393.1	0.027539	3.93	1133.3	3935249	0	8.484443
2010	1606.4	2518.7	206.3	1354.9	0.037492	3.73	1367.3	4048403	0	10.15342
2011	1752.5	2441.97	349.3	1326	0.028772	3.57	1799.4	4168860	0	10.29194
2012	1807.5	2011.43	58.4	1578.1	0.027791	3.85	1871.1	4293313	0	10.45811
2013	1793.3	2610.41	175.7	1644	0.017244	3.611	2071.8	4420549	0	10.54

Appendix 4: Dynamic Forecasts:






7.6
7.4
7.2
7
6.8
1995
2000
2005
2010
2015
Year
LnINV
LnINV (kleinmodel d_)

Appendix 5: Investment increase procedure and results:

Based on the results obtained from the mathematical model, where an increase in investment by 10% will result in an increase in the per capita GDP by 2.1%, and based on the results calculated from PCBS data where each US$ 1 million increase in GDP will result in the creation of 0.117 jobs. These calculations are shown in table A.5.1.

Table 0A5-1 Calculation of the effects of Investment on GDP:

Aid	FDI	INV	Inv * 1.10	INFL	EXRT	XPORT	POLDUMMY	HK	Population	lnPCY	PCY	% increase	LnPCY	lnAid	lnFDI	LnINV	lnXPORT	lnHK	constant
514.1	122.6	1,046.50	1,151.15	2.00%	3.01	562	0.00	8.12	2,614,179	7.268641344	1,445.47	2.09%	7.27619304	-0.65771006	0.117398986	1.532955117	1.395800443	0.326041549	4.561707
552.4	177.2	1,051.60	1,156.76	4.00%	3.24	546	0.00	8.14	2,697,310	7.222493023	1,440.37	2.09%	7.272653433	-0.6652806	0.126395994	1.534012438	1.389394076	0.326424521	4.561707
613.0	163.0	1,186.40	1,305.04	7.09%	3.55	650	0.00	8.18	2,783,084	7.304852137	1,518.04	2.09%	7.325174855	-0.67625115	0.124356254	1.5602436	1.427931496	0.327187651	4.561707
612.6	218.2	1,361.50	1,497.65	5.58%	3.80	734	0.00	8.55	2,871,568	7.405617236	1,629.46	2.09%	7.396006432	-0.67617206	0.131470972	1.590183516	1.454742282	0.334074719	4.561707
580.6	188.6	1,874.10	2,061.51	5.54%	4.16	752	0.00	8.66	2,962,226	7.452344445	1,762.86	2.09%	7.474695012	-0.6705155	0.127921257	1.659679385	1.459845726	0.336057148	4.561707
684.5	62.0	1,312.20	1,443.42	2.80%	4.09	885	0.00	8.85	3,053,335	7.330863822	1,622.94	2.09%	7.391996673	-0.68786982	0.100757383	1.582162209	1.495863118	0.33937678	4.561707
997.6	19.2	1,035.70	1,139.27	1.22%	4.21	616	1.00	8.99	3,138,471	7.204149292	1,332.48	2.09%	7.194794293	-0.72755447	0.072139407	1.530698973	1.415950376	0.341853005	4.561707
971.6	9.4	877.50	965.25	5.71%	4.74	478	1.00	9.14	3,225,214	7.0420239	1,200.81	2.09%	7.090752748	-0.72477421	0.054703342	1.494649363	1.359980538	0.344486717	4.561707
1,041.8	18.0	1,117.10	1,228.81	4.40%	4.55	515	1.00	9.28	3,314,509	7.14440718	1,300.66	2.09%	7.170624339	-0.73212728	0.070563802	1.547153656	1.376551286	0.34677587	4.561707
1,160.8	48.9	1,151.50	1,266.65	3.00%	4.48	597	0.00	9.40	3,407,417	7.213841943	1,373.08	2.09%	7.224808045	-0.74352266	0.094962691	1.553749882	1.409005727	0.348905402	4.561707
1,015.7	46.5	1,234.00	1,357.40	4.11%	4.48	723	0.00	9.50	3,508,126	7.285780671	1,475.45	2.09%	7.296715205	-0.72945105	0.093734085	1.568798945	1.451384924	0.350541302	4.561707
1,360.3	18.6	1,138.20	1,252.02	3.84%	4.45	736	1.00	9.65	3,611,998	7.215313505	1,383.34	2.09%	7.232257898	-0.76022499	0.071364313	1.551223263	1.455311874	0.352876435	4.561707
1,717.1	28.3	888.50	977.35	1.86%	4.11	1,066	0.00	9.76	3,719,189	7.248504072	1,404.63	2.09%	7.24752776	-0.7847714	0.081610622	1.497358739	1.536946157	0.35467664	4.561707
2,470.1	51.5	1,199.40	1,319.34	9.89%	3.57	1,165	0.00	9.89	3,825,512	7.278697953	1,496.25	2.09%	7.310715827	-0.82308153	0.096227413	1.562613747	1.55646154	0.356787653	4.561707
2,826.7	300.5	1,393.10	1,532.41	2.75%	3.93	1,133	0.00	8.48	3,935,249	7.332892287	1,544.01	2.09%	7.34213673	-0.83728972	0.139289378	1.595173617	1.550379987	0.332876465	4.561707
2,518.7	206.3	1,354.90	1,490.39	3.75%	3.73	1,367	0.00	10.15	4,048,403	7.381750929	1,649.78	2.09%	7.408396971	-0.82513526	0.1301071	1.589126668	1.591758847	0.360832619	4.561707
2,442.0	349.3	1,326.00	1,458.60	2.88%	3.57	1,799	0.00	10.29	4,168,860	7.468798619	1,776.63	2.09%	7.482471214	-0.82187562	0.14296319	1.5844375	1.65229699	0.362942156	4.561707
2,011.4	58.4	1,578.10	1,735.91	2.78%	3.85	1,871	0.00	10.46	4,293,313	7.499699954	1,822.93	2.09%	7.508202276	-0.80143987	0.09929701	1.622291995	1.660910567	0.365435573	4.561707
2,610.4	175.7	1,644.00	1,808.40	1.72%	3.61	2,072	0.00	10.54	4,420,549	7.491812777	1,882.21	2.09%	7.540202525	-0.82890344	0.126187445	1.631189509	1.683372209	0.366649801	4.561707

Steps of constructing table A.5.2

Step 1: Record the investment value for the year 2015 in the first raw of the investment column (column 1).

Step 2: calculate the value of investment for the next year by multiplying the value of the present year by 1.1, representing an in increase in investment by 10% compared with the previous year.

Step 3: calculate the annual increase in investment by subtracting investment in the present year from investment in the previous year. (Column 2)

Step 4: Record the value of per capita GDP of the year 2015 at the top of column 3.

Step 5: Obtain the value of next year per capita GDP by multiplying the present year per capita GDP by 1.021. (Each 10% in investment will give a 2.1% increase in per capita GDP), completing column 3.

Step 6: calculate the annual increase in per capita GDP by subtracting present year value from previous year value, completing column 4.

Step 7: record the value of predicted population in column 5, this can be done by multiplying the population of 2015 by the value of population growth (1.029).

Step 8: Calculate the resultant GDP, by multiplying population (column 5), by Per capita GDP (column 3).

Step 9: Calculate the GDP annual increase, by subtracting the value of the present year GDP from that of the previous one (column 7).

Step 10: calculate the annual growth in GDP by dividing the GDP change over the previous year GDP. (Column 8).

Step 11: calculate the GDP per labourer by dividing the average GDP of the last ten years by the average number of Employed persons in the last 10 years. The value was US$ 8,570.

Step 12: Divide the GDP increase in column 7 by 8570 (Average GDP/Average Labour ratio), calculating the number of jobs created due to the annual increase in GDP.

Table 0A5-2 Effect of a 10% annual investment increase on GDP and labour:

Column	1	2	3	4	5	6	7	8	9	10
Year	INV (M)	Inv increase (M)	PCY	PCY Increase	Population (M)	Resultant GDP M $)	GDP increase (M $)	Growth	Inv/GDP	Jobs Created
2015	**2,677.4**		**2,863.9**		4,425	12,673			21.13%	
2016	2,945.1	**267.7**	2,924.0	60.1	4,553	13,314	641	5.06%	22.12%	74,837
2017	3,239.7	**294.5**	2,985.4	61.4	4,685	13,988	674	5.06%	23.16%	78,625
2018	3,563.6	**324.0**	3,048.1	62.7	4,821	14,696	708	5.06%	24.25%	82,604
2019	3,920.0	**356.4**	3,112.2	64.0	4,961	15,440	744	5.06%	25.39%	86,784
2020	4,312.0	**392.0**	3,177.5	65.4	5,105	16,221	781	5.06%	26.58%	91,176
2021	4,743.2	**431.2**	3,244.2	66.7	5,253	17,042	821	5.06%	27.83%	95,791
2022	5,217.5	**474.3**	3,312.4	68.1	5,405	17,904	862	5.06%	29.14%	100,639
2023	5,739.2	**521.7**	3,381.9	69.6	5,562	18,810	906	5.06%	30.51%	105,732
2024	6,313.2	**573.9**	3,452.9	71.0	5,723	19,762	952	5.06%	31.95%	111,083
2025	6,944.5	**631.3**	3,525.5	72.5	5,889	20,763	1,000	5.06%	33.45%	116,705
Total		**4,267**		**662**			**8,090**			**943,975**

Table 0A5-3 Unemployment rate calculation

All numbers are in thousands	**2015**	**2016**	**2017**	**2018**	**2019**	**220**	**2021**	**2022**	**2023**	**2024**	**2025**
Forecasted labour force	**1,299**	**1,361**	**1,427**	**1,495**	**1,567**	**1,642**	**1,721**	**1,804**	**1,890**	**1,981**	**2,076**
Jobs Created		**70.0**	**73.6**	**77.4**	**81.4**	**85.7**	**90.1**	**94.8**	**99.6**	**104.8**	**110.2**
Forecasted labour force Employed	**963**	**1,033**	**1,107**	**1,184**	**1,265**	**1,351**	**1,441**	**1,536**	**1,636**	**1,740**	**1,851**
Rate of unemployment	**25.9%**	**24.1%**	**22.4%**	**20.8%**	**19.2%**	**17.7%**	**16.3%**	**14.8%**	**13.5%**	**12.1%**	**10.9%**

- **Labour Productivity:**

Labour Productivity= GDP/Labour

Labour Productivity= Average GDP 2005-2014/Average Labour 2005-20014

Labour Productivity = 8.5 B US$/992 K

Labour Productivity= 8568 US$ per labourer